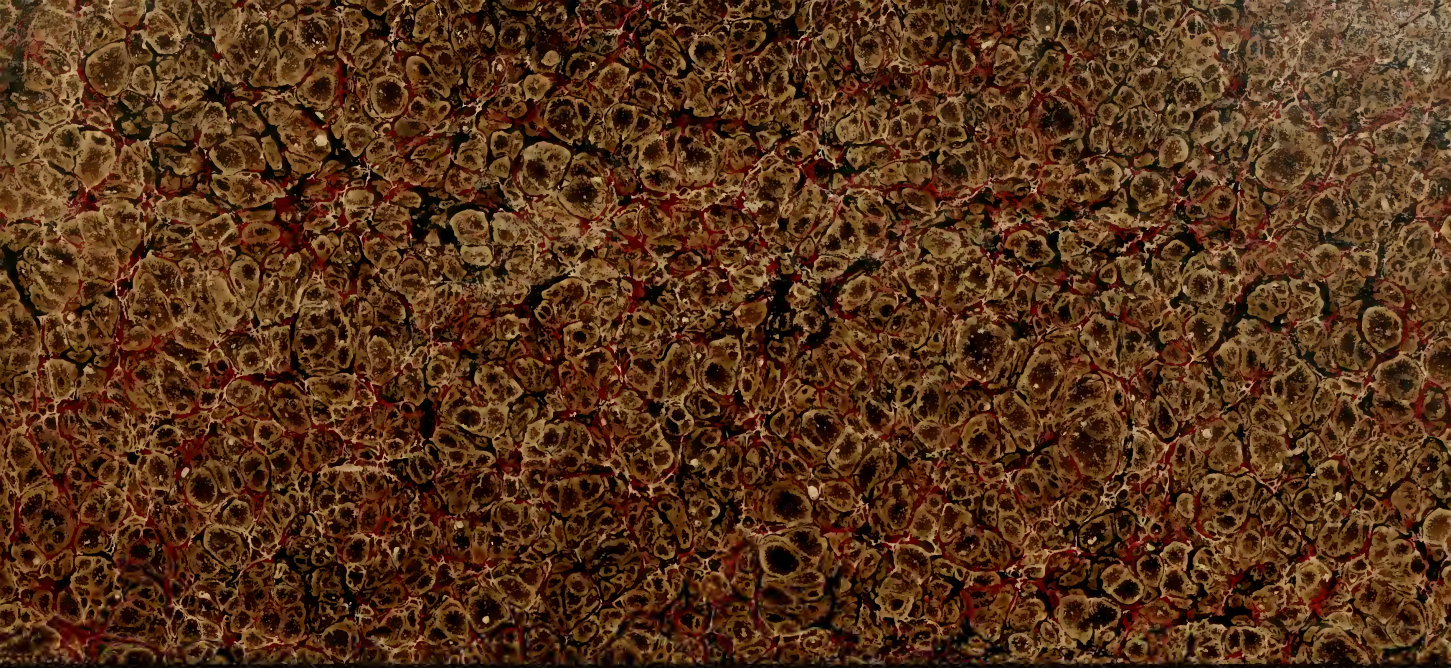

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EDITED BY

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The Charlotte Medical Journal.

Vol. XX. CHARLOTTE, N. C., JANUARY, 1902. No. 1.

Foreign Bodies in the Oesophagus.

J. W. Long, M.D., Salisbury, N. C.

A literal translation of the two infinitives from which the word esophagus is derived would be "to carry what is eaten," but as a matter of fact many things not edible get into the esophagus.

In 1880 Poulet published a two volume treatise on "Foreign Bodies in Surgery," in which he tabulated the various articles from leeches to barbed-wire that have found lodgement in the esophagus. Indeed almost every thing conceivable from the end of a syphilitic patient's nose to a live fish has been arrested in the gullet. These accidents usully occur in children and lunitics. It is an ever present possibility in the mind of the anesthetist, or should be. Even food may become impacted in the esophagus as in one of the cases reported in this paper.

The presence of a stricture, or malformation increases the liability to these accidents.

A foreign body in the esophagus carries with it both immediate and remote dangers, If lodged high up there will be dysphagia. retching, pain and sometimes suffocation, as in a case seen by the writer two years ago in which an inch screw had entered point downward the upper end of the esophagus of a three months-old infant and impinged upon the trachea.

When lodged lower down the dangers are more remote and less remediable when once begun. Indeed, unless the foreign body be removed, penetration or ulceration into some imporant viscus, as the pericardium, aorta, mediastium or pleura is almost sure to result. The longer the object remains in situ the greater the dangers incident to its removal.

ANATOMY.

A brief review of the anatomy of the esophagus will help to elucidate certain points.

According to McClelland (2) the adult gullet is twenty-five centimetres, or about ten inches long. Beginning in the median line on a level with the sixth cervical vertebra the esophagus deviates a half inch toward the left in the neck and returns slightly beyond the median line opposite the fourth or fifth dorsal vertebra, when it again bears toward the left entering the cardia three-fourths of an inch to the left of the middle line opposite the ninth dorsal spine. There are three narrow places in the tube; at the upper end, at the bend opposite the fourth dorsal vertebra at which point the left bronchus crosses it, and near the cardiac orifice where it passes through the diaphragm. Most anatomies and surgeries describe the upper end as the smallest portion of the tube, Gray's anatomy (1) in the fifteenth edition says, "it is most contracted at its commencement and at the point where it passes through the diaphragm. But McClelland (2) says the lumen is least at the two lateral bends, measuring at these points thirteen millimetres or half an inch, and from seventeen to twenty-one millimetres or about three-fourths of an inch throughout the rest of the passage. These measurements were made on the cadaver, and can be increased by forcible dilatation to twenty-two millimetres in the narrowest portions and thirty-six millimetres throughout the rest of the esophagus. McClelland's measurements more nearly agree with the writer's observations, since only comparatively large objects are arrested at the upper end of the tube while those small enough to enter are almost always arrested at one or the other of the lateral curvatures. Of course a sharp or irregular object may find lodgemement at any point along the gullet.

The reasons for the first lateral bend opposite the fourth dorsal vertebrea are interesting. The curve of the spine is slightly convex anteriorly at this point, while the left bronchus is in front and the aorta loops over just about the bronchus to get behind the esophagus. There is a specimen in the museum of the Royal College of Surgeons (1) which, if it represents the normal, will perhaps help to account for this bend. The specimen shows accessory bands springing from the muscular layer of the esophagus and attached to the trachea just behind its bifurcation, which of course tend to draw the esophagus to the right.

While the Italian surgeon Guattani (24) as early as 1747, by experiments on animals and the cadaver showed that there were no

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serious anatomical obstacles in the way of doing esophagotomy, yet the anatomical environments make the operation one not to be lightly undertaken.

Lying in close relation to the esophagus are the trachea, left bronchus, thyroid gland, up to the second or third year the thymus gland, longi colli muscles, the left subclavian, left carotid and right pulmonary arteries, internal jugular and azygos major veins, the recurrent laryngeal and pneumogastric nerves, the thoracic duct, the perichardium, pleuræ, and intercostal vessels.

REMOVAL OF FOREIGN BODIES.

The removal of a foreign body from the esophagus may be done in five ways:

I. By emetics.

II. By manipulation through the mouth.

III. By external manipulation.

IV. Esophagotomy, and

V. Gastrotomy.

I. EMETICS.

Emetics are useful in many instances but are to be condemned when the nature of the object is such as to do damage to the esophagus if expelled violently.

II. MANIPULATION THROUGH THE MOUTH.

When the objectis located at the upper end of the esophagus it is usually an easy matter to remove it by means of the finger, forceps, hooks, or probang; exceptions must however be noted, since the object may be impacted or have such aspirities as to make removal both difficult and dangerous. When lodged at the first bend opposite the fourth dorsal vertabra a foreign body may as a rule be extracted with safety by means of some one of the many ingeniously devised instruments for the purpose. If an object passes to the diaphragmatic curvature the chances for safe removal by manipulation through the mouth is lessened, but still possible in many instances.

The writer wishes to call special attention to what has already been said by a number of surgeons; namely, that prolonged and unduly rough manipulations through the mouth are dangerous, even more so than esophagotomy.

Case 1. Mrs. B., age fifty-seven, having lost all her teeth, was in the habit of bolting her food. While eating dinner Sept. 29, 1901, and dividing her attention between her food and some children at the table she swallowed a piece of gristly beef which stuck in the gullet. She experienced great dysphagia being unable to pass anything into the stomach, she also had some pain and a pronounced sense of discomfort behind the sternum. The writer saw the case with her physician, Dr. A. B. Goodman, about five hours after the accident. Because of the pain produced by manipulation chloroform anæsthesia was employed. An obstruction was found at the first lateral curvature. We finally succeeded in getting a bristle probang by the obstruction, but could not extract the piece of meat. An effort was then made to push it into the stomach, which was at least partially successful, as the probang and other instruments would pass with slight resistance into the stomach. It is likely that some damage was done to the esophagus, as the patient suffered with considerable pain and soreness referred to the stomach and difficulty of swallowing, also rise of temperature, for some days, but in the end made a good recovery.

III. EXTERNAL MANIPULATION.

This method has been employed perhaps from time immemorial, to remove foreign bodies lodged in the cervical portion of the esophagus, but the following two cases go to show that smooth objects may sometimes be removed from the upper intra-thoracic portion by external manipulation.

Case 2. Z. R., age seven years, referred by T. T. Ferree, of Ashboro, N. C., on June 3d, 1901, had swallowed a tin whistle that comes in a certain kind of penny candy. The whistle was an inch in diameter and had lodged at the first lateral curviture. When seen by the writer the whistle had been swallowed for five days. For the first few days the difficulty of swallowing was considerable, but this symptom had improved so much within the last twenty-four hours that the patient almost believed the whistle had passed into the stomach. The chief symptom at this time was an abundant continuous flow of saliva.

By means of the fluoroscope the whistle was located without difficulty. It was impossible to engage the whistle with any instrument at command, and I had almost despaired of removing it without doing an esophagotomy, when a layman standing by said he had "removed a peach seed from a calf's gullet by stripping it up." Acting on this hint and with the patient under chloroform, the shoulders elevated and the head held backward, I pressed my thumb and forefinger deeply into the soft tissues above and behind the sternum and was enabled to "strip" the whistle up into the pharynx where it was easily removed.

Case 3. J. B., age four years, residence

Spencer, N. C., on Oct. 25, 1901, swallowed a similar whistle to that described in case 2, which lodged at a corresponding point in his esophagus. This little fellow, strange to say, suffered very little inconvenience from the presence of the whistle, but an increased flow of saliva was noticed. Through the fluoroscope the whistle was readily seen and the accompanying radiograph was taken. The whistle was removed the next morning in the same way as was the first one.

IV. Esophagotomy.

Esophagotomy was first suggested by the removal of foreign bodies is justly a popular proceedure, though it must ever be regarded as a serious operation until the mortality is reduced from twenty-two per cent, its present rate (25). Abdominal section never came into general favor till the mortality was reduced far below this figure.

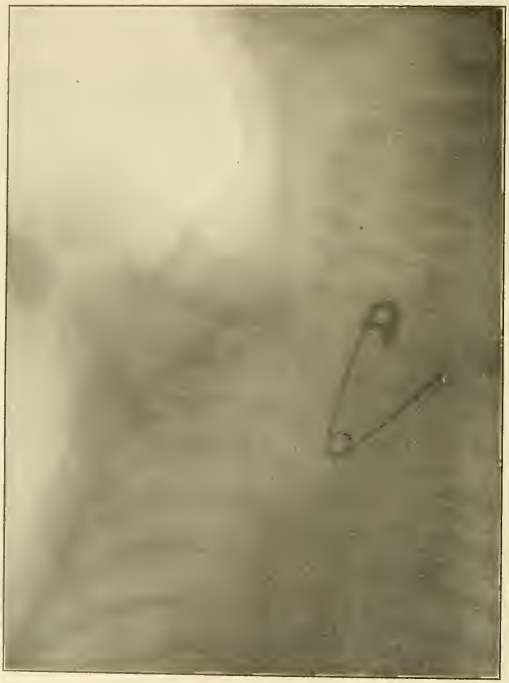
Esophagotomy may be regarded as the proper thing to do after reasonable attempts with instruments through the mouth and formed by Goursault of Limousin. In the hands of modern surgeons the operation for Verduc (24) in 1643, but it was not till 1738 that the operation was actually per-

external manipulation fail, or the nature of the object or the condition of the esophagus does not justify such manipulations.

Case 4. G.L. forty-six days old, female, residence Ramseur, N.C. This little patient measured twenty-three inches long and weighed nine pounds. Since about the 5th of June, 1901, the baby had seemed to have a cold, coughed and fretted a good deal and had spells of heaving, choking and licking out the tongue. On june 15th, the mother while searching for the cause of the baby's distress, looked into the throat and was horrified to see a safety-pin. She tried to remove it but failed, the pin disappearing from view. June 19th two physicians saw the pin in the throat. They gave an emetic which caused emesis but did not dislodge the pin. Chloroform was then administered and an effort made to extract the pin with instruments, which also failed. The pin again disappeared from view, evidently passing deeper into the esophagus. Up to this time it had probably been in the pharynx.

June 22d the baby was brought to the writer. Since the disappearance of the pin, the fretting, heaving and evidences of cold had subsided, so that when seen by the writer the baby was apparently in good

condition. The child was brought for consultation simply because of the solicitude of the parents. The X-Ray revealed the pin lodged in the esophagus, open end up, the lower end as low down as the body of the fourth dorsal vertebra. The radiograph shows the lower end of the pin exactly in the median line, while the open end inclines toward the left, demonstrating the turn of the esophagus to make the first lateral curviture described when discussing the anatomy of the esophagus. The span of the open end of the pin being sixteen millimeters, the esophagus of this young infant was either dilated to that extent or the point had penetrated the wall, probably the latter; and it is to be noticed that it was pointing directly toward the transverse portion of the aortic arch, in fact, the point lies in the aortic shadow. It may also be observed that the pin was entirely within the thoracic portion of the esophagus. A careful consideration of this case convinced the writer that it was unwise for obvious reasons to even attempt to remove the pin by any method except an esophagatomy. This was done the next day with the patient under chloroform, shoulders elevated, head thrown backward and turned slightly to the right side. It was of course necessary to do the low cervical operation, dividing the soft tissues well down upon the manubrium. The extreme smallness of the parts rendered great care necessary in the dissection. The scalpel was used as little as possible after the first incision, and instead the parts were separated by a cautious use of the tissue forceps, scalpel handle, and finger.

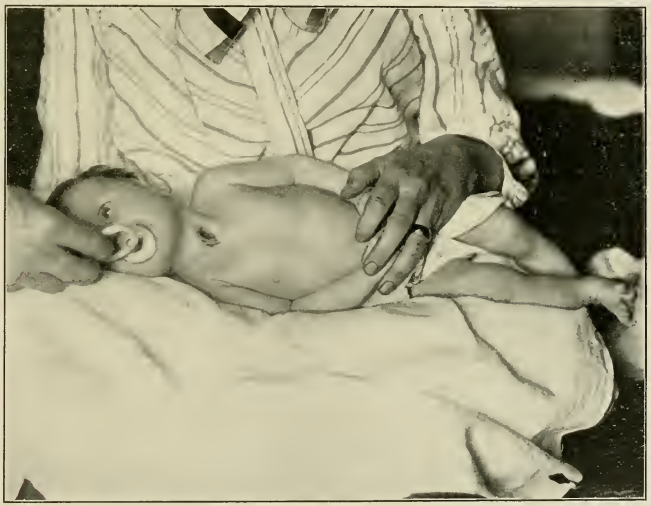


It is unnecessary to detail to this body the important structures encountered and avoided. On reaching the esophagus and locating the pin a tiny opening was made in the esophaged wall directly over the head of the pin which was caught with forceps and gently removed, following the arc of a circle during the withdrawal, the point of the pin being the last part withdrawn. The opening in the brium, working obliquely downward and backward through the suprior medi-

mucosa was closed by three interrupted catgut sutures, one tied internally and two externally. The muscular coat was also drawn together by sutures, only the ends of the cutaneous incision were closed, the wound being packed gently with sterile gauze.

In conducting the after treatment a serious problem was encountered; namely, feeding the patient. Every surgery that could be found says feed by rectal enemata or a rubber tube passed by the mouth or wound.

In the midst of the hot season, with a tiny baby, we felt that either plan would mean failure; so we simply followed old mother Nature's method and put the baby to the breast. That plan succeeded and the baby recovered. The esophageal incision leaked, as was expected, but fluids and air ceased to come through the opening by the thirteenth day, and by the end of the fourth week the external wound had entirely healed.



V. Gastrotomy.

The writer has had no experience with gastrotomy for the removal of foreign bodies from esophagus, therefore will not presume to discuss it here.

REMARKS.

The first case reported suggests the possibility of doing damage with instruments used through the mouth, even though a reasonable degree of caution be employed.

The two whistle cases show what may be accomplished by external manipulation.

The safety-pin case is reported specially perhaps the youngest patient for whom this operation was ever done.

Attention is also called to the almost entire absence of subjective symptoms after a certain time in both the safety-pin and whistle cases.

The plan of putting the baby immediately to breast deserves mention, since it is a departure from the established custon.

to put on record a successful esophatomy on

Without the Roentgen-Ray the safety-pin could hardly have been located and the whistles might have been overlooked,

A further reflection calls forth the query, in view of the absence of positive symptoms pointing to the esophagus in some of these cases and the only recent advent of the Roentgen-Ray, is it not possible that in the history of the human race many children have wasted and died supposedly from malassimilation when in truth there was an undiscovered foreign body in the esophagus?

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Cancer of the Uterine Cervix.

By Geo.W. Pressly, M.D., Charlotte,N.C.

To say that the early diagnosis of cancer of the uterus is important is commonplace for the early diagnosis of any disease is important. But the early diagnosis of cancer is more than important, it is imperative. Other diseases there are which destroy life but in the majority of cases of even the most deadly of these there is a tendency to health. In cancer the tendency is always to death. Other diseases run their course with in certain days and leave the patient weak but well. Cancer has for its course the brief life-time of the victim. And advanced cancer of the uterus has no treatment but the weary waiting for the inevitable. Seven per cent. of all deaths among women is caused by cancer of the uterine cervix. More than that the disease is apparently on the increase and the 7 may rise to 10 or 12 or 20. But even at 7% the thing is appaling.

So then there is nothing we stand more in need of today than signs and symptoms for the early diagnosis of all cancers, especially of cancer of the uterus. We have already said that no disease is more surely fatal and none are more insidious in their beginning. Cancer of the cervix has no premonitory signs and the incipient symptoms are not discovered in an ordinary examination. When we think of the absence of signs and symptoms in the beginning, the disturbances common to the period of life and the natural aversion of women to an examination unless considerable discomfort is present, we can only feel that an insuperable barrier is in the way of an early diagnosis of cancer in this locatity.

The ordinary diagnosis of cancer is one of the easiest things in the world. When there is hemorrhage, pain, a foul discharge and anemia, we have only to ask the patient her age to make a certain diagnosis and a fatal prognosis will be equally certain, The plain and unmistakable signs of cancer come on from six to nine months too late. Bleeding is not a sign of cancer but of ulceration, foul discharge is not a sign of cancer but of decomposition. Anemia simply means that the vital fluid is drained to its very dregs and pain is usually but the red glare before the final fall of the curtain. There is a popular fallacy abroad that cancer means pain and if there is no pain,there is no need to worry, but we all know that as a rule cancer of the cervix has reached the hopeless stage when pain comes. Now what can we find before pain, before the anemia, before the foul discharge and before the bleeding. Doubtless in many cases an apparently healthy womb. So then the task is to tell the healthy from the apparently healthy, and this leads us into the consideration of the question, what is cancer? And to the man of us who can answer truly there shall come the greatness of an eternal renown. In other words we do not know; we know what it does, but what it really is eludes our grasp. The cellular theory of Cohnhein explains in many ways and is perhaps most nearly right so far as theory goes.

So far the search for specific germs has yielded no positive results of a practical nature. Under the microscope cancer is simply tissue growing in a reckless aimless

manner. Normal tissue has purpose in its growing and a due regard to the amount of nourishment which can be continually supplied. Cancer grows without a plan and claims all nourishment as its own. Cellular elements, normal to the body and to the locality, grow like weeds and multiply and die for want of room. Cancer cells are abnormally large and have one or more nuclei and several nucleoli. That is they are full of seed. The more malignant the growth the more nuclei, so that they differ from ordinary cells in being better equipped for rapid multiplication. The force that controls the normal growth of the body is not well understood. Just why muscle cells and connective tissue cells will grow side by side and yet each one keep its own place in the healthy organism we do not know. In some way function or purpose seems to be the governor of the reproductive power. The uterus is developed by the growth of cells, muscular, connective and epithelial, and when a certain size is reached the growth stops of its own accord. The epithelial, the connective and the muscular tissue cells are formed in the proper proportion and each in its proper place. In cancer the epithelial cells not only grow abnormally fast but they invade the proper location of the other cells. So then in malignant disease of the cervix the epithelial cells loose the plan of the architect and build without a purpose and to the destruction of the other tissues of the organ. This has been well illustrated by comparing the uterus to a building. The muscles are the walls, the connective tissue is the partitions forming rooms, and the epithelial tissue is the plastering. So long as these keep their proper relation all is well, but if the plastering grows out into the rooms, blocks up the hall and finally breaks through the wall all is confusion and ruin.

In cancer the epithelial cells grow down into the muscular and connective tissue with such force and rapidity as to destroy the normal tissue and so alter the blood supply as to induce the molecular death of the part so affected. The governor has slipped its belt and the reproductive ability of the individual cell runs away. This is cancer then, an abnormal reproduction of cells otherwise normal to the body at one stage or another of its development. But as to why this abnormality the cellular theory, and the investigations of Gaylord, Plimmer and a host of others, leave us still in the dark. There is no specific germ and so our early diagnosis is delayed.

The cell is not specific as it is normal to the part, but it has certain abnormal characteristics which are specific and these will help us at a very early stage. The microscope will show a cell abnormal as to size, irregularly shaped from pressure, full of seed and away from its normal site. We should look carefully for these when at all suspicious of cervical disease and couple on to this a painstaking study of certain secondary or predisposing causes, of which, from sad experience, we know a great deal, such as age, general condition, irritation, scars and heredity.

The average age of greatest predisposition is 45 years. The youngest patient on record was 17, and none have been reported below that age. Cases over 60 are not uncommon, though comparatively rare. The disease is most common at the age when the uterus is laying aside the function for which it was made and is ready to be merely a looker-on. Perhaps the normal cells of the part have been worked overtime and their vital force is at a low ebb. They are not as resistive to deteorating influences as when they were young and strong, and so the diseased cells find their work all the easier.

The circumstantial evidence is rather strong as to the liability of the well-to-do, the hearty eaters who have lived well are more subject to the disease than their less fortunate sisters. Thus we frequently see the disease in otherwise strong and healthy women. Excessive meat eating is said to be a predisposing cause as among vegetarians it hardly ever develops. It is more common among whites than negroes and savages almost never develop cancer. The disease is unknown in extreme northern and southern latitudes, and is rarely found in cold climates. Women, who have borne children, are more liable than others, and for this reason lacerations of the cervix are important in this connection. Scar tissue is liable to degenerative changes almost any where but in the neighborhood of the cervix it seems especially prone to mix up with cancer. An irritating discharge from a cervical catarrh or other cause seems to be a causative factor in some cases. Heredity is said not to cut much figure but if we accept the cellular theory it would seem worth considering as twins, deformities, supernumerary digits, monstrosities, etc., seem to run in families. The nervous system even has a hand in the matter, as cancer is more rapid in very nervous individuals and slow in those of phlegmatic disposition.

There are three forms of carcinoma of the cervix, the superficial, the papillomatous and the parenchymatous. The superficial or ulcerating is, in the early stage, hard to distinguish from simple erosion, but two or

three applications of a ten per cent. solution of sulphate of copper will cause an erosion to heal while it makes the cancer more cancerous.

The papillomatous begins as a papilloma or hypertrophy of the papillæ to which is soon added the epithelial activity at the base and we have the characteristic cauliflower-like growth of the cervix which makes the diagnosis very easy.

The parenchymatous or nodular is hard to distinguish from a small myoma or beginning fibroid. On section a small tumor will be tough and resisting, a cancer nodule is soft and easily cut.

It has been said that women naturally object to an examination unless there is considerable trouble referable to the pelvic organ, but this is not so serious an obstacle in the way of an early diagnosis as is the unnatural objection of the doctor to do his whole duty. It is here that the early diagnosis of cancer of the cervix fall down, the doctor is too ready to agree with the friends of the patient that it is simply change of life, when in reality it is a change from life to death, and so the careful examination of the patient is neglected.

So long as cancer is only curable in its early stages and so long as it comes upon the patient so insidiously the examination of any woman over 30 who has borne children is not complete, no matter what the pressing symptoms are, until the uterine cervix has been inspected. It is likely true we will hardly be in position to accurately diagnose cancer in its early stages until we have examined a great number of wombs which are not cancerous. At any rate let us endeavor to get out of the habit of waiting for the premonitory signs of death and then calling them in our superior wisdom, the symptoms of cancer. Examination of the cervix does not mean a digital examination alone but in connection with the speculum, tenaculum, sponge, sound, curette and if necessary the knife.

And ore examination may not be enough as any suspicious finding should be watched at intervals. If we find an elevated area of the mucous membrane, change in color, a small lump beneath the surface, a warty growth, an erosion which will not heal, a tendency to bleed on touch, or considerable friability of the tissue, the case should be taken in hand and carefully watched.

The treatment of cancer of the cervix is hysterectomy complete and thorough if the disease is limited to the cervix, if the vaginal border has been reached no radical operation is of any avail.

The uterus and its appendages should be removed through the abdominal route as it offers better facilities for doing certain and thorough work. In selected cases with large roomy pelves the vaginal method could be done but in general the abdominal is best. In advanced cases with involvement at or above the vaginal junction and affection of the lymphatic glands, while we can do nothing in the way of cure we may do much to relieve. The curette and actual cautery will check for a time the foul discharge and keep the temperature at the normal. Bromine is also of use in such cases. There is no reaction in cancer and the fever is due to sepsis from the ulcerating surface. The indication then is plain. Keep it clean; if you can't keep it clean, keep it as clean as you can.

Let us all try to move up the time of diagnosis, when made do a complete hysterectomy from above, remove everything. Taking all kinds of operators the statistics of the radical treatment is as follows:

15% die from the operation.
50% die from recurrence.
35% recover.

Vaccine Virus, with Special Reference to the Dangers of Glycerinated Lymph.

By F. J. Runyon, M.D., Clarksville, Tennessee.

In my former communications upon the subject of glycerinated lymph (Memphis Nedical Monthly, June, 1900, and August, 1901, and Georgia Journal of Medicine and Surgery, September, 1901,) I feel that I have not sufficiently dwelt upon *the danger of infection from this source.* I wish in this paper to emphasize this point, as well as some others that have recently come to my notice.

In my article read before the last meeting of the State Society (August Memphis Medical Monthly), I stated my belief that "if glycerine and water are added to vaccine virus in sufficient purity and quantity and then kept long enough for it to destroy all pathogenic bacteria, the protective power of the lymph will be impaired or destroyed." I think the evidence of this contained in the paper very strong. Turning to the other side of the picture what do we have?

Dr. Welch, of Philadelphia, wrote me his great objection to the glycerinated virus is the excessive inflammatory action and destruction of tissue sometimes attending its use, and stated that he had even seen it cause sore arms in those whom he knew to be immune to smallpox. To test the effi-

ciency of the vaccinations of some who had been vaccinated with the glycerinated lymph, Dr. Welch revaccinated thirteen with points of proven power, and as none of them took it is of course fair to assume all had been rendered immune by the glycerinated virus. With this same lymph another most excellent and careful physician gave me his experience and that of a brother doctor. He said: "I have been practicing medicine for fifty years, and during that time I have vaccinated many hundreds. I have called children from their play and upon their unwashed arms, with the same lance, and from the same arm, I have vaccinated dozens; I have used the 'crusts,' and the dried lymph on 'points' in the same way hundreds of times, but never in my life have I seen such arms as some of those upon whom we used the glycerinated lymph. While I was faring thus, Dr. F. trained in antiseptic work and practicing it rigidly—fared no better. Thinking the fault his own he redoubled his efforts, but with the same results.

Learning of some unfortunate results following vaccination in one of our cities, I wrote to a physician there for particulars. With the same virus referred to above (except these were glycerinated *points instead of tubes*), this physician thus detailed his experience:

Cases vaccinated	6
Lost trace of	1

"Six of the cases seemed to go a natural normal course from four to seven days, when they would suddenly and without evident provocaution develop into a large two to shree inch circular open discharging sore, necessitating attention for from eight to eleven weeks, and I had one case dressed every other day for thirteen weeks. The seventh case had proven refractory to vaccination and had been vaccinated eleven times when a child without result. This time she was vaccinated with every antiseptic precaution. In spite of this tetanus developed on the fifteenth day with most disastrous results." Of three other such cases in the same city the doctor writes me two were vaccinated with glycerinated points, but he is unable to say by whom or with what the fourth was vaccinated. Continuing, the doctor stated that of sixty-one vaccinated with dry points he never had a failure or a sore arm. (Perhaps I should state that the dry lymph used was from a different producer, though another physician reports to me good results from the *dry points* of the first designated producer.)

From Dr. Guest's excellent paper read before the Lonisville Clinical Society (see Pediatrics, March 1st, 1900), I quote the following: "The vaccinations from points, as a rule, resulted in small scabs, with a small percentage of dermatitis and a still smaller percentage of destructive ulcers.

In vaccinating four hundred cases with glycerinated lymph I estimate that a percentage of ninety showed an inflammatory action. This percentage would have been higher except for one school which gave very poor results—fifty-two vaccinations with twenty failures.

"The vaccinations from (glycerinated) lymph resulted, as a rule, in large scabs, with widespread dermitits, resembling an erysipelatous inflammation, and often with destructive ulceration following.

"Many cases showed marked glandular swelling, and swelling of the arm below elbow, and to the wrist, hand and finger tips. The case also showed an acute febrile condition, with painful joints and great pain along the arm from tension.

"I estimate that in over fifty per cent. of these cases this inflammation as described was much greater than we would ordinarily expect from vaccination.

"The worst of these conditions ran a prolonged course of undue violence from three to six months befere healing.

"In the language of Dr. Brozozowaki, 'the arms were terrific, resembling legs instead of arms.' He estimated that sixty per cent. of his cases, of a full tube vaccination, showed these conditions.

"I had more trouble and criticism following these four hundred cases from glycerinized lymph than I did with the entire 5,123 cases of vaccinations from points. I noticed the period of taking was marked by a grea variance, some cases taking on inflammatory action in three days, while others commenced on the fifteenth and sixteenth days."

I have recently obtained through a friend a most interesting article read by Dr. H. M. Alexander before the Lancaster City and County Medical Society, entitled—"Fluid or Dry Vaccine; Which is Superior and Why?" As to which is "superior," my investigations left no doubt in my mind, but in the "why?" I have been much puzzled. I quote the following from his article: The general reports are that the action of tubes is much less favorable than that of points (dry points are intended), there being more inflammation and fewer true areolas and constitutional symptoms, which are the only positive indications of a protective vaccination. This is a matter which is very difficult to explain, and has its like in the following difficulty, which we have never yet solved: If we use liquid virus, fresh or otherwise, with or

without glycerine, from one animal to another, it requires but few removes of this character to exhaust it altogether. Often the first will fail to produce perfect, protective kins pox, and in a half dozen similar changes we will have either an entire failure or an ulcerative result.

"The same thing holds good if we use dried virus on our seed spades that is not fully five or ten days old. It may surprise you when I say that we avoid as much as possible using any seed under fifteen or thirty days old, and we prefer it sixty.

"Now there is but one plausible explaination, and that is, *that in the fresh virus, or when in the liquid condition, there are bacteria yet undiscovered, which interfere with and take precedence of the vaccine microcci. The unknown bacteiria are evidently destroyed in dying, or cannot endure long the dried condition.* (Italics mine.) If I desired to send you a point for use in your own family, as a special friend, I would select one that is fully ten days old. It would, perhaps, be impossible to convince the profession of this fact.

Throwing aside all the dangerous methods that are, can and will be used in the production of fluid lymph, I believe that there is an undiscovered germ, which is kept alive in glycerinated liquid limph, but which is destroyed after a few days in the dried lymph, and which is the dangerous bacterium that has been the cause of so much trouble in the use of vaccine virus in Europe and other foreign countries, while we have not had to deal with it in America.

"I can clearly demonstrate, or you can for yourself, by experiments on animals, as well as on the human subject, that if you continne to proagate the disease from one animal to another, or from one individual to another, by mixing the seed with glycerine so as to prevent its drying, that it will very soon become exhausted. After you have had inflammatory results that are protective, but are mischievous, you will have deep ulcers, confluence, etc. At the same time you can take the pure lymph, dry on its points, use it after five, ten or fifteen days, and you can continue to develop a true vaccine vesicle, and a protective one, with the true areola and constitutional symptoms, through thousands of subjects. This may not be in accord with the theorizing of bacteriologists, but it is clinical experience, tried and retired.

This helps very much to explain the failure of glycerinated lymph. Of course virus may contain the vaccine germs and give rise to immunity to smallpox while locally pursuing an abnormal course; or such virus may not contain these germs and yet produce a sore arm, *thus giving rise to a fancied protection where none exists.* According to Public Health, July, 1896, (page 135). "many physicians are unable to distinguish between an inflammatory reaction and a true vaccine vesicle."

As the *source of vaccine virus is a matter of great importance*, I will quote again from Dr. Alexander's article regarding this:

"Vaccine virus can be procured from what might be called, perhaps, three sources. The first is the crust, which is decidedly objectionable, as it has been exposed to stable debris, is loaded with saprophytic bacteria (which are always found in the atmosphere) and hay bacillus, while the under surface is filled with pus cells by coming in contact with the pus layer. Portions of the crust, especially the under surface, are very rich in vaccine corpuscles, and this is the reason why physicians so frequently claimed that it is better than the other forms. The abundance of vaccine corpuscles enable them, with more careless operating,to vaccinate successfully; but they have as a result many very violent inflammations, due to the dangerous bacteria which they have introduced therewith.

"The second source is what many bacteriologists call the pus layer. It is made up of broken down epithetical cells, vaccine corpuscles, etc., and found between the crusts and the surface of the vesicle. It is undoubtedly the richest of all products, and if properly applied, extremely likely to produce a vesicle of some kind; but it is extremely dangerous, and we are sorry to say that from it most of the fluid vaccine on the market is produced today. Heretofore it was cast away as a dangerous product.

"The third source is that which exudes like drops of perspiration, after the crust has been removed, the dangerous pus layer sponged away and the animal properly prepared with antiseptic precautions in a clean, disinfected operating room. This lymph, never having been exposed to atmospheric influences, is undoubtedly the safest. It is not quite so rich in vaccine corpuscles; therefore, requires a little more care in its application to insure success; but when success is attained with this form, it is not with the accompanying dangers and the very frequent undesirable results which attend the use of either of the other two. We feel that it is the only product that should be used, and it is this serum which is and had been used for coating ivory points, and which is known as the American form of dried lymph."

So we see, no matter what form of lymph

is used, its source is of great importance. From Public Health, July, 1896, I quote the following: (This is from the report of the "Associated Health Authorities of Pennsylvania" after personally visiting and inspecting many of the vaccine establishments of the United States.) "In some places we found that the pus layer, for such it is, was not regarded by the operators as pus. In fact, some regard it as a particularly strong lymph and charge their points with it. Such points should not be used. Microscopical examination of this substance reveals pus organisms in large quantities, also typical pus cells."

Again, some propagators use the glycerinated virus for seed, which, according to the article above quoted, soon gives rise to only an ulcerative condition, the *vaccine disease* (and hence immunity) not resulting.

Turning to the other side of this subject, viz: where the sterilizing process has been carried too far. I quote the following from and editorial in the London Lancet of April 28, 1900: "The objection to the practice of voccination on the score that there is risk of concurrent septic inoculation, is one which can have absolutely no locus standi, while lymph properly prepared is capable of passing the strictest bacteriological test. Nor is the efficacy of the vaccine itself at all impaired by the glycerinizing process; indeed, it sometimes even seems to be rendered more marked. At the same time, the freer the lymph is from extraneous organisms the less marked will be those inflammatory concomitants which are so familiar to all vaccinators. Without entering into the question as to how far the 'areola' is an essential part of the vaccine vesicle or not, it does certainly appear as if much that has ofter been regarded as essential is not so much due to the action of the vaccinal organism itself as to organisms acting as irritants upon the cutaneous tissues. The purer the lymph apparently the longer is the time taken for the formation of the vesicle and the less marked the stage of so-called 'maturity' or pustulation. Indeed, there is reason to believe that the immunity conferred by vaccination is just as marked whether local effects stop short at the characteristic vesiculation. For as our report says: 'One statement that may be accepted without reserve is that if the lymph be free from bacteria (especially streptococci and staphylococci) and typical vesicles slow of development with little inflammatory areola and late in coming to maturity be obtained, there need be no fear that the patient is not properly vaccinated."

Let me here state that unless the typical Jennerian vesicle with its accompanying areola and constitutional symptoms normally follow a primary vaccination, that person will, in my opinion, contract smallpox when favorably exposed to its contagium. (Note that I here refer to a perfectly pure virus—uncontaminated with foreign matter.) There may be exceptions to this, but I am positive that I have stated the rule. "At the recent annual meeting of Association of Executive Health Officers of Ontario, at Brantford, the question of the failure of vaccine as effective protection against smallpox was discussed. Many representative Ontario physicians united in testifying that a large number of vaccinations were worthless as protection against the disease. Various causes were ascribed including careless handling and administration by doctors, careless transporation by railways, *but chiefly the desire of the manufacturers carry the refining to far and to sacrifice the practical for the scientific or commercial side.* (Italics mine.) After a lengthy discussion it was decided to appoint a special committee to look into the question and report at the next annual meeting.' (American Medicine, July 6. 1901).

Consider for a moment the reason of probability.—Since for generations primary vaccinations have been followed by *uniform* results; since vaccinations (with pure virus) of those recently vaccinated give negative results, and since vaccinations with the dried lymph almost invariably (always in my experience) give negative results in those recently vaccinated (*with dry lymph*), does it not appear reasonable that any virus not followed by the local and constitutional results so well known for generations will not prevent smallpox? *I believe I can, in truth, assert that it will not, as a rule do so.* Does it seem reasonable that the dried lymph, *so uniformly followed by the results*, could, with any constancy, be contaminated with hurtful germs? Then it is but reasonable to assume that in order to secure immunity against smallpox—a previous attack—or vaccination with a virous, followed by the familiar "vaccinia" of Jenner, must of necessity result. Does it not also appear reasonable that the "vaccinia" described generations ago is an absolutely necessary sequel of proper vaccinations when immunity to smallpox is secured; and that any virus varying from the standard so sharply defined and recognized for a hundred years, is below the standard of strength or of purity? I believe this is absolutely true. For many years (Wood's Reference Handbook of the Medical Sciences) attempts have been made to render

vaccine "germ free," but all such attempts have proven disastrous failures, for it has been found that the germ of vaccine has by such measures also been destroyed. The *dry lymph, by a careful, experienced and conscientious propagator, is reliable and safe*, and its use is but seldom indeed followed by untoward consequences. With this lymph (dry) I have seen hundreds vaccinated upon unwashed arms, and, too, without serious results. Yet since the advent of the glycerinated (and supposedly aseptic) virus, vaccinations have been done under strict antiseptic precautions, and yet I believe more grave results have followed in the last two years than in any ten before, where arm to arm vaccinations or the dry lymph was the form of virus used. I ask that the profession investigate these things and then judge whether this be true.

One other point before closing this paper. The Cleveland Medical Journal (August, 1901) recently called attention to the short-sighted and hazardous policy on the part of cities in purchasing for gratuitous vaccinations "cheap vaccine." This is not only culpable but it endangers the individual upon whom it is used, and, perhaps, (by lack of protection), the community. *The best vaccine is always the cheapest.* I hope the profession will thoroughly consider this matter, and at once and forever discard glycerinated virus. When "germ free" it seems to be practically inert so far as conferring immunity against smallpox is concerned, and when it is not, there appears to be at present, (besides the germs of vaccine), other germs which are *liable* to cause serious results;—results entirely foreign to normal vaccinia. So glycerinated lymph is far inferior to the dry lymph—so long and so successfully used.

Shall the Negro Practice Medicine?

By W. T. English, A.M., M.D., Pittsburg, Pa.

This question has been answered in the negative by the anthropologist, who proclaims that the negro race is disqualified by nature from entering into the higher vocations. By comparing the convolutions and sulci in the brain of the African with those in the white man's, the anatomist and physiologist estimate the negro to be at least one thousand years behind. Biologists and histologists establish the general fact that the germinative cells alone can transmit to descendants their influences and that hybridism tends to bring races upon equable planes, but deny these advantages to the mulatto. From this mongrel race is withheld the capacity for continuing viable through the number of generations requiste to evolve those attributes belonging to the higher races, and which no civilization can produce or destroy. The physical basis, upon which all attainment depends for human kind, fails before maturing time.

Accepting these unquestionable deductions of scientists, we cease to search for traditional gleams of light in the negro physician's past, nor do we longer question why his present medical efforts touch the zero mark; and, knowing that the shortcomings of his race are not amenable to correction, we confidently predict for his medical pretentions a hopeless future. Lack of definite purpose among negro students of medicine causes nearly fifty per cent. to abandon the study. Of those who reach graduation, four out of ten relapse into other callings, while only one in three continuing in the profession arrives at what might be called reasonable success. This retirement of the negro from medical aspirations might be accoded to him as worthy if it were the sequence to an appreciaton of unfitness, but this fact is not in evidence.

The negro dispositon to retrograde from vantage ground is characteristic. Emancipated from slavery recently in Hayti and elevated to higher possibilities they are already back to voodoo worship and Cannibalism. Many special conditions favor this retrograde from medical practice.

The negro memory has the possibilities of acquiring knowledge, but in medicine these arsenals of learning become antedated sooner than in any other profession and it is the exception for authorities to remain a decate unchallenged upon the medical man's book-shelves. Incessant investigations and frequent discoveries yield to advancing medicine an ever-widening area with inconstancy of outline. The negro physician is disturbed by all this and each new thought finds in his limited mentality an awaiting prejudice. In his efforts at diagnosis and prescribing, whether in emergencies or with deliberation, the negro physician betrays his incapacity for individual or mental self-dependence. In medical practice, as elsewhere, he is artificial, formal and unreflective. His prescriptions are copies of those of his white teachers, and his technical enunciations recall the echolalia of the feeble minded. When medicine moves forward, and his encyclopedic knowledge is antedated, he is without resource and falls behind or quits the profession.

The negro is disqualified from entering

the profession of medicine by ungovernable impulses, which preclude the acquisition of quiet fortitude and needful skill, so prominent in the white medical exemplar. The negro emotions are as unrestrained and dangerous to-day as they were before civilization touched him. Without system, divested of sympathy, and minus principle, the negro medical man dispenses his services. His social tendencies are undirected, indiscrimate and excessive and by promiscuous exercise of these he departs from necessary concentration of mind and professional stability of purpose. It will be admitted that the social physician *per se* is seldom scientific and rarely trustworthy. It is the practice of the noblest of medical men to become more or less gregarious and "of the head," seeking and finding mental and social affinities amid the writings and counsels, as well as direct companionships of those of his kind. Moreover the lazy habits of body and general sedentary disposition of which the negro cannot or will not be divested are directly antithetic to the constant demands for the employment of physical energy made in the active exercises belonging to a medical life.

In view of these facts alone, without referring to the numerous other details that might be called in evidence, it becomes the proper course to discourage negro medical ambitions. Teachers who direct their negro pupils into the medical path are guilty of a many-sided wrong. No training can fit for a medical life one whom nature disqualifies. It imposes an unnecessary and grievous burden to thus force upon any one a competition which from the very condition of things means defeat. Furthermore it has been demonstrated that only the best of human kind is truly eligible to the office of physician. He should proceed from among the survivals of the fittest and be in every respect the fittest of those who survive. Natural qualifications should be supplemented by ample training, so that act, thought and being shall bear the impress of a noble inheritance and experience gathered from myriads of ancestral generations. To one so equipped there comes a gentle but irresistible call to minister to physical ills like to that which bids men to minister in the temples of Almighty God. If any earthly calling be divine, medicine assuredly is.

Regardless of these considerations there are those who imagine that anything which wears a human countenance is eligible to the highest places and capable of exercising the noblest functions. It is lamentable superficiality of judgment which assumes that the negro requires only civilization and encyclopedic knowledge of the medical curriculum that he may become the white physician's confrere. Rather direct him into the inelastic environment of the legal profession, where authorities one abide unquestioned for generations, and wherein the negro's capacities for imitation may avail in mimic oratory. Better far to direct the negro ambition toward the functions of the ministry, where his parrot-like methods need not always mar the rendition of the "old, old story" and where encyclopedic knowledge endures always.

The right of the negro to become a man is undisputed. This denial of the higher planes is not a question of the race prejudice, but a law of nature—that races are unequal. Armstrong, Frizell and Booker T. Washington have expressed similar views, and they are better qualified to teach the negro than leaders of political organization.

Give the negro the privileges of the ballot from property reasons, educational reasons or hereditarily. Teach him to be self-sustaining and self-respecting. Uplift him by every availing effort; but for unnumbered generations yet to be, the answer of nature and experience to the question "Shall the negro practice medicine?" must be emphatically "NO."

Puerperal Eclampsia. *

By H. R. Coston, M. D., Osceola, Ark.

Definition. Pueral Eclampsia is an acute, convulsive disease, developing during pregnancy, labor, or the puerperal state. It is characterized by tonic and clonic convulsions, affecting first, the voluntary, then the involuntary muscles, and ending in coma or deep sleep.

Development and Frequency. It develops most often in the latter months of pregnancy, next during labor, and least often during the puerperium. Schauta and others place its frequency at once in four-hundred cases. Its frequency varies however in different localities. I know of one locality in which it occurs at least once in every hundred cases. Why this is so I cannot say.

Etiology. The etiology of puerperal eclampsia is as yet to a great extent uncertain. Many theories have been advanced, none of which have been proven, beyond doubt to be correct. My own opinion is that it is an auto-toxemia. The predispos-

*Read before the Mississippi Mo., Ark. Medical Society Dec. 4, 1901.

ing cause is pregnancy. Adjuvant causes are: Renal affections, acute and chronic; torpidity of the liver; intestinal fermentations and decompositions: multiple pregnancy and pregnancy in primiparæ; convulsins occur ten times as often in multiple as in single births; and three times as often in primipræ as in multiparæ.

Exciting Causes are: Sudden suppression of the urine, either partial or complete; constipation; painful uterine contractions in the presence of a rigid os uteri or a contracted or unyeilding introitusvaginæ; profound shock; exhausting efforts at expulsion; "———whatever the prime etiological factor a secondary factor is *uremia*." (Grandin and Jarmin). When once established the least pain or shock will be sufficient to produce paroxysm.

The Symptoms are prodromal and those of the attack.

Prodromal Symqtoms: Headache, tinitus aurium, dizziness, amblyopia, amaurosis, epigastric pain, digestive and nervous disturbances, general debility, there may be somnolence, stupor, or insomnia, vertigo, mental excitement or despondency, albuminuria and edema of the extremities are nearly always present and edema of the face or slight puffiness under the eyes.

Symptoms of the Attack: These are divided into three stages: 1. invasion; 2. tonic and clonic convulsions; 3. coma.

Iuvasion: The eyes open widely; the lids twich or snap convulsively the eyeballs roll from side to side; the pupils are first contracted to a pin point then widely dilated; they become insensible to light; the face becomes cyanotic; the muscles about the mouth twich convulsively; and the mouth drawn to one side—more often the left; the eyes are rotated to the side to which the mouth is drawn. This stage is merged into the second or *convulsive stage*. The movements which were confined to the face extended to the neck and trunk, and lastly to the extremites. Some authorities say the legs are rarely involved, but such has not been my experience. The neck and back are rigidly drawn into the opisthotonic condition; the arms are rigidly extended and the hands closed with the thumbs drawn across the palm; the knees are flexed. The chest mucles become so involved that respiration is suspended for a time, or is very spacmodic due to the tetanic contraction of diaphragm and accessory muscles of respiration. The tongue is protruded in the beginning of the attack and, unless protected, is often bitten, the blood which stains the saliva; later it may be rapidly protruded and withdrawn partaking of the general clonic spasm which supervenes after the tonic has lasted from ten to thirty seconds. Loss of consciousness is complete. As the tonic spasm relaxes the clonic comes on, the face being the part first involved. The jaws open and close rapidly, often with a distinct snap, and unles it is well protected the tongue will now be badly lacerated; the face is horribly distorted; the head is rapidly rotated or rather jerked from side to side; the eye-lids snap, and the muscles of the nose and mouth are thrown into repulsive grimmaces which once seen can never be forgotten; respiration becomes irregular and noisy, and as the attack draws to a close, becomes stertorous. The clonic contractions of the muscles may be so severe as to necessitate holding the patient on the bed but such is not usually the case, and efforts made to straighten the flexed limbs are sure to increase the intensity of the spasm beside the danger of lacerating the muscles. This stage passes into the third or stage of

Coma, which lasts from half to one hour, during which time consciousness slowly returns. This may be the end of the matter but as a rule unless active treatment is instituted another attack will follow with the return of conciousness and so continue until it ends in death. The pulse is small, wiry, and very rapid. Usually the temperature is not much elevated in the beginning of the attack but if the case is not progressing favorably the temperature rises rapidly and before death may reach 104F. or more. There is usually little or no urine in the bladder but the catheter should always be passed and the urine, if any is secured, examined; it will be found to contain albumin in 90% of the cases.

The Effect on the Fœtus is verey deleterious; many times the child dies before birth and should it be born living more or less trouble may be expected for several weeks. When eclampsia occurs before the end of pregnancy labor nearly always sets in at once due to the shock to the system and to the effects upon the uterus of the violent muscular contractions.

The Pathology is obscure. Postmortem the organs of the general system are anemic; the cerebral cortex is congested, and it is not uncommon to find slight apoplectic foci in the brain, liver, and kidneys; the blood is in a fluid state,

Diagnosis: This is not difficult. Epilepsy is distinguished chiefly by the history of the case—former attacks not in any manner connected with pregnancy or labor; by the abscence of edema and the presence of normal urine in the bladder; by deeper

coma; by the pre-epileptic cry; and by the presence of an aura.

Hysterical patients are conscious; the contractions are less violent; there is no coma; they scream, laugh, or cry which are never present in eclampsia; there is a large amount of practically normal urine in the bladder; we can usually get a history of previous attacks.

Apoplexy is rare and the convulsions are absent; paralysis is evident and coma is continuous.

Meningitis is even more rare than apoplexy; fever alays pecedes the convulsion; the convulsions are local rather than general, especially in the early stage of the disease, and it progresses slowly but surely until death. Here also the typical signs of meningitis and the history of the case will clear up the diagnosis should there be any doubt.

Injuries to the cranium producing convulsions will be recognized by the presence of the wound.

By giving careful attention to the urinary examination as regards albumin, sugar, renal and blood-casts, as aids to the clinical picture, one can scarcely make a mistake in the diagnosis.

The Prognosis is grave; nearly all authors give the maternal mortality at 30%, and fetal at 50% of all cases. My own mortality in twelve cases has been one maternal death,—a mortality 8 1-3%; four children out of thirteen were born dead there having been one case of twins with both childeren living. This gives me a mortality of 30% for the children. One child born living died within a few days. The earlier in pregnancy eclampsia occurs the worse the prognosis for both mother and child. Before labor is worst; during labor less dangerous, and in the pueral state least so. Prognostications can also be based upon the profundity of the coma, the severity of the convulsions, and the rapidity with which they succeed each other; the amount of albumin in the urine. The death or delivery of the child is favorable to the mother. An increase of the urine or of the urea is decidedly favorable. In a few words the prognosis is favorable: if the attacks are mild and infrequent; if the convulsions appear first after delivery; if the child dies in utero or is delivered; if coma is not deep and consciousness returns completely before another convulsion appears; if the urea is abundant and the albumin limitted; if the temperature remains low or falls if it has been high; or if the attack begins after delivery.

The Causes of the Death of the Mother: are apoplexy from rupture of cerebral vessels exhaustion, asphyxia, pulmonary or cerebral œdema, cerebral congestion, or cardiac paralysis.

The Cause of Death in the Foetus are: Asphyxia from deficient circulation and from œdema and compression of the placenta; the absorption of carbon-dioxide in the blood; acd very probably from direct poisoning by the toxic materials circulating in the maternal blood.

The Treatment should be divided into *prophylactic* and *curative.*

Prophylactic Treatment: When the prodromata of eclampsia are present every function should be investigated. Saline and cholagogue cathartics should be administered to unload the liver and boweles; intestinal antiseptics should be given to retard or prevent auto-intoxication from that source; pepsin and hydrochloric acid to aid digestion: diuretics to increose the renal secretion, and the best of these in my experience, for this condition, is lactate of strontium.

Above all as a prophylactic is the careful regulation of diet; if the symptoms are threatening, the woman should be *restricted to an absolute mtlk diet.* By the use of diuretics, cathartics, and the restriction to milk diet most cases can be safely carried to term and delivered. Should the symptoms increrse in severity I believe we should not hesitate to induce labor and hasten it by manual dilatation and instrumental delivery if the condition of the mother should demand it.

Curative Treament: Give chloroform during the attack to full surgical anesthesia, and as quickly as possible fill your syringe *full* of Fl. Ext. Veratrum Viride and throw it deeply into the muscles of the buttock. Always introduce the catheter. Watch the pulse carefully and give five to ten drops of the Veratrum every half hour until the beats are reduced to sixty or under per minute. Keep the pulse below sixty until the woman is fully conscious and the kidneys are acting; I do not pretend to give you the rationale of the action of the drug but this much I do know: if it is given with a bold hand very few eclamptics will die. I have ured it in twelve cases with only one death and I am not sure she died of eclampsia. Breifly the case is as follows: G. W. aet. 20, colored, single; primipara; 8 months pregnant. First called at 9 p. m. Patient comatose; been having light convulsions for past 12 hours; entire body cavered with syphilitic eruption; slight dilation of os. She took a violent convulsion while I was making vagnial examination. I gave a syringe full of veratrum into the gluteii muscles; no more convulsions

until 3 a. m., when I was again called: I gave more Veratrum and delivered with forceps during chloroform anæsthesia. Fetus syphilitic; dead. At 8 a. m., she had a light convulsion and received another hypordemic of Veratrum. She had had no more convulsions at 3 p. m., when I saw her and consciousness was beginning to return, pulse good. At 4 p. m., I was notified that the patient had suddenly died: whether or not she took another convulsion and died with it the messenger was unable to say. It would be of interest to know what part sypnilis played in this case. Cesarean is never justifiable for the treatment of puerperal eclampsia if the bony pelvis and fetal parts are normal.

Hot normal salt solution, either by the rectum or hypodermically will be of great benefit and some have recommended that kali acetat. be added to the salt solution and I can well believe it would add to its efficacy. Morphin, chloral, the bromids, and venesection all have their advocates and are useful when we are without veratrum. Multiple incision of the cervix has been recommended and should the os remain rigid under deep anesthesia and the life of the mother or child demand hasty delivery I should no hesitate to use it, and repair the incision at once. Every convulsion reduces the chances of life for mother and child, and I believe we should empty the uterus as quickly as is compatible with all the conditions.

The following works have been freely used in the preparation of this article:

Am. Text B. of Obs.; Hirst's Obs.; Am. Sys. Obs.; Jewett Obs.; Leishman Obs.; Grandin and Jatmin Puerperl Dis. etc.; Lusk Midwifery; Boisliniere Obs. AC. etc.; Scæffer Atlas Obs. Diag. and Treat.; Atlas Labor and Oper. Obs.; Bouchard Auto-intox. in Dis.; Progres. Med.; An. Univer. Med Sci.; Sajous' Anal. Cyclo. Prac. Med.; Quain Dic. Med.; Wood's Ref. Hand B. Med. Sci.; yeas books of Lea Bro's. & Co., and W. B. Saunders and various articles in New York Med. Jour. Med. Rec.; Jour. Am. Medr Ass.; Jour. Med. Sci.; Thera. Gazette; and many others.

Koplik's Spots, as a Diagnostic Sign of Measles.

By W. C. Brownson, M.D., Asheville, N. C.

It is nearly five years since Koplik first published a new and absolutely pathognomonic sign of measles. Since that time two other articles have appeared by him, and his observations have been confirmed in this country and abroad, still it seems the subject has not received that geneaal attention which it merits.

A sign of measles which can be relied upon absolutely, which can be found from one to five days before the general eruption upon the skin and which Koplik says positively is present in every case of the disease, whether in the infant or the adult in the first attack or in the rare second attack, in white or black. should certainly be known by every physician and diligently sought for in every separate case.

All writers upon measles have had something to say of the signs to be looked for in the mouth and throat in this disease, but nothing especially characteristic, nothing pathognomic was described until Koplik announced his discovery. The throat in the beginning is reddened, the fauces and soft palate may be spotted. but in many affections practically the same appearance is shown in grippe, rubeola, scarlet fever etc.

The sign described by Koplik is an eruption which appears upon the buccal mucous membrane of the cheeks and lips and which precedes the manifestations upon the skin by from one to five days. It is to be found probably as soon as the patient exhibits any signs of illness.

A good light is necessary to make the examination successfully, bright daylight from a window, the shading being so delicate that by artificial light the spots would be overlooked. The mucous membrane of the cheeks should be everted by the fingers and thumb or by a spatula, then on the buccal or labial mucous membrane two or three or a half dozen small irregular bright red spots are seen, and in the center of each spot a minute bluish white speck. This makes the diagnosis of measles certain for in no other condition of health or disease are such spots found. They cannot be mistaken for anything else after being once seen.

In sprue the spots are white, there is no bright red back ground and there is a formation of plaques. In apthous stomatitis the spots are at first yellowish and can be readily distinguished from the Koplik spot. The normal "pearls" of the mucous membrane sometimes observed have not the bright red back ground the normal glistening mucous membrane is seen to cover them.

This eruption of the mucous membrane, as Koplik says, runs a kind of cycle. It is especially valuable at the outset before there are the characteristic appearances of the skin. As the skin exanthema appears

and is spreading, the eruption upon the mucous membrane becomes diffuse the discreet character of the spots disappear. There is an intense general redness of the mucous membrane which is covered over with myriads of the bluish white specks. When the skin eruption is at its height these disappear, and before it has faded, the spots in the mouth are no longer seen. Thus the great value of the sign given us by Koplik is manifest. Characteristic spots, which make their first appearance from one to five days before any eruption upon the skin, become more numerous and are at their height when the exanthema appears upon the skin, then disappear while the skin lesions are still present.

In differential diagnosis, the value of the Koplik spots cannot be overestimated. In many diseases, which will be readily called to mind, the general spmptoms at the outset have much similarity to those of measles, thus grippe, rubeola, scarlet fever, varicella etc. Sometimes the macular eruption of syphilis will perfectly simulate the exanthema of measles, but the absence of any trace of the Koplik spots would throw out any thought of Morbilli at once. In the negro the measles eruption must often be recognized by touch rather than by sight. Here the Koplik sign is of great assiftance.

Urticarial and drug eruptions often resemble closely the exanthema of measles. Antitoxin rashes are sometimes puzzling. In these the presence or absence of the Koplik spots will settle the question.

My personal observation of this new sign of measles is limited to the last year, durinb which time I have seen between twenty and thirty cases.

In ten of these cases I had the opportunity to examine for the eruption before there was any skin lesion. These cases ranged in age from two months to thirty-five years, and in all of them the spots were discovered from six hours to three days before the eruption upon the skin, in two or three of them the course of the cycle was observed from the time one or two very minute almost impreceptible greyish-white spots appeared, increasing in numbers until they were countless and gradually disappearing before the skin eruption had faded.

In the infant of two months, thrush was present at the time of examination making the detection of the Koplik spots more difficult. In one family of four children where the oldest had been sick for some days before the doctor was summoned, and there was an interval of a week or more before another child showed the disease, I was enabled to predict to the mother from a daily examination which child would be next to come down with the fever.

One fact about this eruption in the mouth I have not seen noted, when it is at its height the spots are considerably elevated and can be noticed by the patient in passing the tongue about the mouth. My little boy, five years old, who had been red eyed, sneezing and coughing for two days from an enfluenza, as I supposed, in whom measles had been entirely unsuspected. came in from his play one morning and said, "Papa, there are a lot of little dots in my mouth." I took him to the window and saw at once the inside of the cheaks and lips studded with numberless Koplik spots. There was a slight mottled appearance of the face, and that afternoon he was "broken out" very thoroughly.

I have not nentioned that the Koplik spots are very readily removed by washing the mouth or perhaps in eating an ordinary meal. This will explain why they are sometimes absent when sought. They are, however, invaribly present, I believe, at some time before the skin eruption is manifest. Koplik positively affirms that his spots are present in every case. Almost all of those who have studied the subject and written upon this new symptom since Koplik's first communication to the Archives of Pediatrics, Slawyk, Knospel and Havas abroad, Sobel, Libman and Hirsh in this country believe in the constant appearance of these characteristic spots.

Zahorsky alone, so far as I am aware, says the spots are occasionally absent in mild cases.

If the careful inspection of the mouth in a strong light is adopted as a routine practice in the examination of children, many cases of Rubeola will be diagnosed at once that otherwise would pass unrecognixed until the appearance of the eruption upon the skin would stamp the case to any layman as undoubted measles.

The Artificial Delivery of the Placenta.

By B. H. Blair, M.D., Lebanon, Ohio.

Labor is a physiological process by which the foetus and its appendages are separated from the mother, and is naturally divided into three stages. When, as usuallly occurs, delivery is accomplished by the unaided efforts of the maternal organism it is termed natural; but if art-aid or replace that power it is designated artificial labor. Exquisite are nature's contrivances and beautiful to contemplate the processes whereby the passages and the passenge

are prepared by changes in form and relation—changes passive and plastic—so that child-birth may generally be accomplished, by natural means, without injury to the tender foetus or the delicate sensitive maternal structures. But occasionally difficulties to be overcome are such that the maternal organism is inadequate and the resources of art must be invoked.

The helping hand of the Obstetrician may be useful or necessary in the First and Second or the Third stages of lobor. It is the third stage—delivery of the placenta, especially that concerns us at present.

In the language of Bryant—

"To him who in the Love of Nature holds,
Communion with her visible forms,
She speaks, a Various Language,"

And in the management of the third stage of labor we do well to heed Nature's voice and teaching. The natural or physiological delivery of the placenta consists of two steps: First, its detachment and then its delivery.

With reference to the mechanism of detachment, authors are not agreed; but without discussing theories more or less plausable it seems most reasonable to the writer that after the expulsion of the foetus, the retraction of the uterine muscles whereby the walls of the organ tend to approach each other reduces the cavity and internal surface and causes a much greater reduction in the area of uterine surface hitherto occupied by the placenta than occurs in the placenta itself, though it becomes considerably reduced in bulk, the disparity betwen the placenta and the uterine surface of attachment, together with contractions of the uterus, effect the separation of the placenta then active uterine contractions expel it. After the uterus is relieved of its great distension by the delivery of the foetus we should permit the uterus—as Nature indicates—to accommodate itself to its diminished contents. We should watch and wait at the bed-side for a while, with a hand over the uterus ready to detect any symptoms of hemorrhage or undue relaxation of the organ that might permit a concealed hemorrhage and hold ourselves in readiness to promptly and properly arrest or remedy a flooding that might bear away the mother's life. How long we may, with propriety and safety, wait for nature to act or the extent of the intervention required will vary with the character of the preceding labor and the conditions present. If the labor has been rapid and vigorous the placenta will likely be promptly expelled. A slow labor with feeble contractions requires a longer time. My practice is, where there is no obvious reason for prompt interference, to wait on nature (with my hand more or less constantly upon the abdomen over the uterus) from twenty minutes to forty minutes, or even an hour, the natural efforts failing by this time, "frictions over the uterus and grasping the organ with the palm over the fundus, the four fingers applied to the posterior and the thumb to the anterior wall, compression vigorous," but not violent, is made during a uterine contraction (Crede). This method has the advantage of imitating nature with reference to the direction of the force applied—and in avoiding, when successful, the danger of infection incident to the introduction of the hand into the uterine cavity for the detachment and removal of the placenta, as well as the danger of inversion of the uterus or leaving fragments of placenta retained where delivery is made by pulling upon the cord. But the so-called Crede method is not an unmixed good; too violent compression may injure the uterus, may crush the placenta and favor the retention of portions of it; furthermore instances are reported of irreparable injury being done to the ovaries where the compression is applied to the sides of the womb.

But cases are occasionally encountered in which natural methods and the most skillful compression are unavailing, to expel the placenta, owing to strong adhesions between it and the uterus; under such circumstances without risking the dangers of delay, permitting the life blood to slowly or rapidly flow away; the proper course to pursue is to scrub and disinfect as thoroughly as posssible the hands and vulva (remembering that however carefully the hand of the operator has been prepared if the vulva—normally infested with bacteria, pathogenic and non-pathogenic—is not likewise disinfected it will remain a source of danger), and after this preparation, slowly and gently introduce the hand into the uterus, following the cord as a guide. If a considerable time has elapsed since the delivery of the foetus, difficulty will likely be encountered in passing the hand into the womb by a narrowing of the organ at the internal oss, or just below the location of the placenta. So firm is this contracting at times that without undue violence the fingers cannot reach the imprisoned placenta beyond. This narrowing of the uterus about its middle, while the upper and the lower portion are expanded, has given rise to the name "hour glass contraction," which contraction was believed to be the cause of the retained placenta,

but experience with a number of cases of this character convinces me that the contracted ring is the result of the normal retractility of the organ, which not being occupied at this point by anything to prevent an approximation of its sides, this narrowing occurs.

In two cases seen in consultation some hours after the birth of the child, only a portion of the placenta was retained, the larger portion having been pulled away and the contraction ring was in both cases broader and much higher than in cases where the whole of the placenta is retained. In fact, the retained remnant was closely hugged by the retracted uterus above and the contraction ring below. This state of the uterus, where a part only of the placenta is adherent, as I have invariably found in cases of retained placenta, I believe to be conservative, an effort on the part of nature to close the mouths of bleeding vessels, without using force to dilate the so-called hour-glass contraction, thereby increasing the dangers of traumatism and infection, anæsthesia to the surgical degree will make dilation easy and, of course, painless, the fingers are to be advanced to the site of adhesion and by lateral or other movements gently insinuated between the more or less extensive but intimately adherent surfaces of uterus and placenta. The detachment completed, the uterus is allowed to expel the hand and placenta. As the placenta has probably been so mutilated in the process of detaching it that inspection will not enable us to determine that it is entire, the hand should be re-introduced and the internal surface of the womb carefully examined and any remaining fragments removed. Under strict antiseptic precaution, the uterus may be irrigated and the case treated as if the labor had been a natural one

Then and Now.

By J. A. Reagan, M.D., Weaverville, N. C.

When we entered the practice of medicine fifty years ago the advantages of scientific investigations were quite limited to what they are now. True, there were finely educated men in the profession, as good scholars as the present time; but the means were not in their hands as at the present day. Our stethoscopes were very inferior, straight and only about six inches long. We had no fever thermometers, hence had to be governed by the pulse to tell the rise and fall of temperature. We had no hyperdermic syringes, consequently when we wanted to get the effect of medicine, when we could not give it by rectum, or mouth, we had to blister a surface, and sprinkle the medicine on the raw places produced to hasten absorption. Now we can get the effect almost as quick as we could spread and prepare a blister, for at that day they were not manufactured as now, and were more extensively used.

The microscope, though used in some cases for scientific purposes, was not used by physicians to examine the blood and sputa of patients, as is done now. The electric battery was rarely ever used and many physicians had never seen one, much less used it. We had but few drug stores, especially in small villages, and they were mostly kept by men who could not fill a prescription; they only sold drugs; in many cases did not know the effect of different kinds of medicines, hence the physician had to buy the drugs, and manufacture and furnish his own medicines. Now we have educated pharmacists who understand their business, and the physician only examines the patient and write his prescription and it is put up correctly, and now the patient pays the bill. Then we had ignorant women practicing mid-wivery, and a physician was not sent for until the mid-wife failed, and she was unwilling to acknowledge her ignorance until it was too late when the physician was called to save the woman's life. We could give a number of cases that would astonish any one who has not had the trial of such cases. There was a runner came for me to see a woman four miles from my office. He had rode his hose at a fast gate, and we were soon ready for the trip; we were riding pretty fast. Two miles from home we met a man in a loap to hurry us up. We increased our gate, and one mile further met another. We put our horses to full speed. One-fourth of a mile before we got there we met a woman bearheaded screaming, hurry up. When we reached the gate we jumped off and ran into the house without even hitching our horses. We found the mid-wife with all her strength holding back the child. We said, "what is the matter?" She said "the womb and all is coming." We took her place and found she had mistaken the amniotic sack that covered the head of the child for the womb. She had held it back until the trip of eight miles had been made—four each way. She had killed the child, and the woman never had good health any more. The child was delivered in two minutes after we took charge of the case, but too late to save the damage done.

We could give many more cases of gross ignoraace, but this will be enough to illustrate the want of knowledge in those cases. There were but few physicians, especially in the country and small towns who had any obstetrical forceps or knew how to use them. We had a case of eclampsia where the woman was unconscious. We sent for our forceps, and an old physician, of considerable reputation, being at my house came with the man who brought the forceps. We asked him to place them on the child's head. He worked and worked, and finally said he could not do it. We took them and placed them, and delivered the woman in a few minutes. This shows how little the forceps were used in that day. As to bacteriology, it was scarcely thought of, much less practiced, but now doctors are regular "bug hunters." It is interesting, and in some sense profitable to occasionally look back and see how our ancestors struggled through all the difficulties of the times in the practice of the healing art, and the advancements that have been and are making to bring the practice to the true scientific standard. Take their opinions ana use of calomel. It was their first and most used medicine. In the Materia Medica of 1833, Dr. Eberle says: "Calomel is unquestionably one of the most important articles of the Materia Medica, whether we consider its purgative virtues or its more extensive and specific influence upon the animal economy." Dr. Johnson of that day speaks strongly in favor of large and repeated doses of calomel in dysintery. He gave 20 grains three or four times a day and he affirms that "it was followed by great alleviation of all the distressing symptoms which attend this complaint." Dr. Eberle says "The usual dose of calomel as a cathartic is from 8 to 20 grains. Ten grains may be considered as a medium dose. If given in too large doses it is apt to excite vomiting." Our opinion is that but few physicians of the present day would risk their professional reputation by giving 20 grains of calomel at a dose and repeating it two or three times a day in a case of dysentery, yet such was the case in that day. The use of calomel alone shows the great advance in the scientific practice of medicine. Ergot is another of the old remedies that has been more thoroughly investigated, and is taken from its former position by most physicians of the present day. Dr. Eberle says, "There is no medicine of the materia medica that is more universally used to excite our admiration of that wonderful and mysterious connection of various organs of animal economy, by which a slight impression upon one part is instantly propagated to another, and there manifested often by the most vehement actions where labor is protracted in consequence of feeble or irregular contractions of the uterus. This medicine administered under due precautions hardly ever fails to excite vigorous and effective contractions. In a large majority of cases the ergot may indeed be regarded as a very fit substitute for the forceps and victis."

When we began the practice of medicine ergot was used in nearly all cases of labor, and now it is rarely ever used, if at all only in the third stage of labor, so as to cause the uterine contractions after the child is born, and then only when the patient is subject to great loss of blood at that time. Ergot was then only used in obstetrical practice; now it is used to produce contractions of the muscular fibers of the small blood vessels in some cases of hemorrhage, also in bowel diseases in some cases. It has been used in cases of anurisms. A few have reported success in this mode of treatment, while others report failure. Dr. Paul Vogt imployed it with success in a case of varicose veins of the leg of many years standing. Dr. F. E. Barlan Fontagral used ergot in chronic dysentery and diarrhœa on account of its power of causing contractions of the capillaries; hence while its use is curtailed in obstetrics, it is still a useful medicine in some diseases. Perhaps one of the greatest changes has taken place in the treatment of fevers. In the old practice calomel in large doses were given and blood-letting freely practiced, while water, ice, or snow was prohibited in all case, and starvation encouraged.

We have wondered how any lived under this treatment. When quite young we remember seven grown persons to die in one family of typhoid fever under the best physician then in that section. We have always been glad that the old treatment of fever had mostly passed before we graduated in medicine, otherwise we should have been afraid we should have been guilty of murder, for that treatment does seem to hasten death. Yet there were some practicing the bleeding, calomel, and starving systems who had graduated fifty years before we did. We are glad we learned to use water and ice while at college. Some years ago we were called to a family in an adjoining county that had scarlet fever of the malignant form. When we reached the place we met the two physicians who were treating the cases, and asked them of the prospects. They said "bad, bad, one is dead, another dying, and the third is the worst case of the three." We went in and saw the second one drawing her last breath.

We then went to the third that was reported the worst, and am confident we never saw human flesh as hot as she. We sent to the river, got a bowl of ice, gave her some to eat, then rubbed her all over with ice except her face, noticing her pulse. When they were where we wanted them, we had her greased that night and in the morning. That day we went to see a sick woman some four miles off. The next morning as we passed the little girl was sitting up playing with her dolls. She made a nice recovery without any sequals that sometimes attend or follow scarlet fever. She is now an old maid, if thirty-eight years makes a woman an old maid.

There are many improvements made in the manufacture of drugs and in analyzing them so as to know what properties they have and what effect combining different ingredients has on the different class, but many physicians stay with their patients so short a time they, even with all the scientific advantages, they do not find out the peculiar idiosyincræties of the patient, and may give medicine that cannot be borne by them. We remember two women in our practice who could not bear spt's. turpentine even applied to the hands or arm. It poisoned them by application to a sprain, producing an erysipelas. We were called to each case and saw that effect, hence we desire to know if there is any idiosyincræty by which certain kinds of medicine cannot be borne. It is safest for us to know all we can of those who are committed to our care, even if we do live in a day of science and light.

Some Unusual Forms of Pigmentation of the Skin.

Pigmentary staining of the mucous membrane of the mouth has long been regarded as the best diagnostic sign of Addison's disease; its absence makes one hesitate; if found, its existence dispels doubt. Since 1891, however, Thibierge, Besnier, Greenhow, Danlos, and others have recorded instances where, in long standing cases of phtheriasis, besides the classic melanodermia, there occurred steel-grey patches on the inner aspect of the cheeks, without any other symptom of Addison's disease. Chatin (Ann. de dermat. et de syph.) relates another. This was a ragman of 78, in the greatest wretchedness and weakness, infested with innumerable numbers of lice, bronzed on the trunk generally, but not on the sites of election in Addison's disease. On the surface of the buccal mucous membrane there were many steel colored blotches, 4 or 5 mm. in diameter, and irregularly arranged, He complained of profound lassitude, of vague lumbar and epigastric pains, of cough, vomiting, and occasional diarrhœa. Yet in three months after his admission to hospital he had lost his cachectic appearance, had gained in weight and color, and the pigmentary stains in the mouth, as elsewhere, had quite disappeared. The *Demodex folliculorum*, a tiny almost immobile vermiform, *Acarus*, which lives in the hair follicles, may in the pig and dog cause skin affections very pruriginous, very severe and almost incuracle, but in man has usually been regarded as harmless. When abundantly present in the Meibomian follicles, it has been held as sometimes the cause of rebellious blepharitis. Dubrueilh, however (Jour. de med. de Bordeux), shows that it may give rise to an abnormal pigmentation of the face. resembling piryriasis versicolar. The patient was aged 40, and complained of spots and hands of a pale orange-yellow hue on her chest and face. These were not elevated. and did not desquammate, but on close inspection showed a rough granular aspect, due to an exagerated prominence of the hair follicles. The free border of the lips had the scaly appearance often produced by cold. On scraping and examining in glycerine, epidermic detris and many specimens of the *Demodex* in all stages of evolution were seen. The pigmentation was always round a folicle, though, when closely set, it coalesced. He thinks that it is caused by a toxine secreted by the parasites when in sufficient numbers and in certain persons, and is comparable to the blue-grey marks left by the *Pediculus pubis*. In his case treatment did not effect a cure, but one of Amici's yielded to soft soap.—*Indian Medical Record*, *Nov. 13, 1901.*

Patients as well as practitioners are familiar with the suffering entailes by the removal of gauze dressings, these having the drawback of adhering very closely to granulating surfaces, owing to their loose tevture. Dr. Von Miculicz suggest an easy means of obviating this disadvautage, viz., by wetting the dressing with oxygenized water. This provokes a copious evolution of bubbles of gas, the mechanical effect of which is to free th gauze and allow its removal without causing pain. The method is so simple as to deserve the notice of surgeons.

When the stroke of the pulse is feeble, and the sounds of the heart are faint, give digitalis.

Malignant Hydatidiform Mole.

Solowij and Krzyszkowski (Now Lekarskie, 1900, Nos. 22 and 18; Revue de Gyn. et de Chir. Abdom., May-June, 1901) observed a very distinct case of this affection in a woman, aged 47. She had borne 11 children, and the last pregnancy was five years before observation; she had never aborted. The period had ceased for two and a-half months; since then uterine hemorrhage was continuous, and for a week abdominal and lumbar pains had been felt. The patient was cachetic. A smooth, hard, immovable tumor of the size of a fœtal, head, could be felt above the symphysis. It proved to be an enlarged uterus, and a painful swelling lay in the right fornix. A spongy, bleeding mass protruded at the os on the day after examination; a day later the cervix was dilated and a typical hydatidiform mole was removed with much clot. Free hemorrhage followed, and was checked by the tampon. Death from septicæmia occurred a few days later. The uterus was examined after death. The new growth had invaded all the uterus, destroying the anterior wall and fundus, the appendages, and broad ligaments. The right ovarian vein was plugged by the new growth, and there was embolism of the right pulmonary artery. Metastatic deposits were found in the lower lobe of the left lung; they con-

Abdominal Pain in Typhoid Fever.

Georges Martin has made a series of observations on the different forms of abdominal pain and their significance in typhoid fever (These de Paris, 1901). A certain amount of abdominal pain seems to be the normal condition of affairs in typhoid, but in many instances such pain takes on special characters, and may demonstrate the presence of some complication, pneumonia pleural or otherwise. At times cutaneous hyperæsthesia is so marked that the patient cannot bear to be touched and his cries almost suggest peritonitis. Abdominal pain in typhoid may mean retention of urine. In some instances hæmorrhagic effusion into the abdominal muscles has been the explanation. If menstruation persists during the course of typhoid, which is in itself exceptional, there may be intense pain. Such cases must be regarded with caution, as hæmorrhage and pain may all the time be due to imminent abortion. It may happen, again, that during the course of typhoid fever the patient suddenly complains of violent abdominal pain, the parietes becoming distended and tense. The patient utter-sharp cries, and everything suggests perforation. Careful examination in such cases has demonstrated the presence of hysteria. Epigastric pain accompanied by vomiting has been described by Chuffard, in some cases as the dominating symptom of the disease. Such pain may be provoked by the ingestion of some food material. When diarrhœa is intense in the course of typhoid it may give rise to a sharp pain of a colicky character, coming on especially when the the bowels are about to move. The pain is generalised, and careful consideration of this fact will sometimes prevent serious mistakes in diagnosis. Inversely, constipation with accumulation of fæcal material may be the cause of severe abdominal pain. The too early administration of solid food may also cause pain. Perforation and peritonitis are, of course, the chief causes of abdominal pain, and it is from such that the other conditions require to be diagnosed. Pain in the region of the right hypochondrium suggests the possibility of hepatic complications such as congestion of the liver, hepatic abscess or empyema of the gall bladder. Similarly, on the left side it may be due to infarction of the spleen. On the other hand, Martin describes cases of severe abdominal pain without there being any indication of its cause, and at the post-mortem examination nothing being found to account for it. Many cases are quoted in which the pain was so severe that the abdomen was opened with a view to discovering the cause.—*British Medical Journal*, Dec. 7, 1901.

Radical Treatment of Hydrocele.

Block (Rev. de Chir.) describes a new operation for the radical cure of hydrocele of the tunica vaginalis. The old method of injection of iodine, he points out, causes a very painful inflammatory reaction, and, in common with the more recent treatment by incision and drainage, necessitates prolonged rest in bed, and does not ensure freedom from relapse. The author makes a free incision into the sac, applies a 3 per cent. solution of carbolic acid to the surface of the exposed testicle, and the whole of the inner surface of the tunica vaginalis, and stuffs the cavity with strips of iodoform gauze. After removal of the gauze on the third or fourth day, the wound in the skin is closed by catgut sutures. Of eighteen cases treated by this method, the patients having been seen after intervals between eight months and five years from the date of operation, in one only was a relapse noted. This was a case of very large hydrocele in a man aged 64 years.—*Indian Medical Record*, Nov. 13, 1901.

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HOSPITALS IN SMALLER TOWNS.

The subject of hospitals in smaller twons which was discussed in an article in the October number of this Journal is a very timely and important one. It is one that is worthy the attention of the profession in every section especially in the smaller towns where no such convenience exists and which is surrounded by sections of country well populated. The establishment of such an institution is of paramount importance, particularly so in these days of rapid railroad travel, trolley car lines and other modern methods of enterprise. An institution where accident cases may be taken, where the arrangements and convenience for prompt operation or attention are at hand. "American Medicine for June 15, 1901 says editorially" a surgeon of great reputation and experience recently made the statement that within a month he had been able to save the lives of two patients, who would certainly have died, had they not been operated upon with all the facilities of a hospital immediately at hand."

To such a place whenever any person suddenly becoming ill or injured may be taken where experienced nursing may be had at once and which affords the proper course of after care that may be intelligently carried out, giving the patient much better chances for recovery and the physician or surgeon a surer possibility of success, such conveniences being ready and at hand which only occasionally may be had or provided in any privete house, often not the home of the individual.

Besides, thus establishing a convenience to which the indigent or charitable worthy cases of a remedial nature may be taken that they may have that necessary proper care which is the only hope often of their return to health and strength. A place where they may receive proper nursing and proper dietary, conditions which could not be obtained under their isolated and impoverished surroundings.

Such an institution is a desideratum, where cases suitable for operation may be taken when it would otherwise be impossible to undergo the fatigue or to toke the required time to go to a distant city. "The nearest hospital is none too near to convey cases of painful accident and patients requiring immediate operation" says a writer in "Medical Record" of April 13, 1901.

Dr. Wm. Osler recently, in an address speaking of hospitals, said: "The little farm well tilled is the best."

The organization and establishment of a hospital needs only the effort of a few persevering people. Several broad minded gentlemen and two or three enthusiastic ladies are all that are needed to organize and conduct the institution. After sufficient finances have been obtained, a suitable building, and if possible a new building, constructed for the purpose, is to be secured.

The charitable of the community can usually be depended upon to provide for the financial needs of the running expenses.

In every section of the surrounding communities, there should be organized and auxillary composed of a number of ladies of such neighborhood who will interest the people of that sestion in the welfare of the hospital, to provide money, food, clothing household supplies etc.

Arrangements may be made with a number of physicians as a staff to make daily visits and to attend to any work needing their care. All regular physicians may be accorded the privelege of attending any cases of their own in the hospital, even though they are connected with the staff.

All persons who are able to pay the hospital charges as well as physician or surgeon's fees should be ready and required to do so. In this way the hospital may be made nearly self-supporting.

THE ARMY CANTEEN.

One of the many pertinent subjects which have interested the medical mind during the past year is the abolishment of the army canteen. Much pressure had been brought to bear against Congress and the noble McKinley; the matter was well weighed and thoroughly considered with the result that the order went out for discontinuance.

This was brought about by those who considered that the individual soldier would be better by the absence of alcoholic liquors in the camps.

No sooner was the canteen discontinued by the army than a few persons began making efforts to create sentiment against the abolishment, with the effort to have it restored to its old place in the army regulations.

At the meeting of the American Medical Association, at St. Paul, in June 1901,

a resolution was passed asking that the canteen be restored to the army. We understand there was only a small number present at the time. Such would not represent nor could voice the profession of the country. The proceedings were questionable; as such a matter could not be acted upon until after it had been discussed by the bodies who had sent the delegates, so acting. This is all wrong. Let the "House of Delegates" which was constituted by the reorganization of the American Medical Association at the next meeting consider this proceeding and either expurge the resolution from the minutes or declare against it.

It will take several years of confirmatory data to prove positively the advantage or disadvantage of the charge. The Secretary of War has commanded the preparation of statistics on this subject.

The probabilities are very strong that when sufficient data have been callected they will show great gain by the absence of the canteen from the army.

Lieut. Gen. Miles has been opposed to the sale of alcoholic drinks for years. The Army and Navy Journal says: The vigorous utterances against the army canteen which characterizes the annual report of Lieut. Gen. Nelson A. Miles will surprise no one who is conversant with his record on that subject. On various occasions from 1880 to the present time he has exerted his influence to have the sale of alcoholic drinks either severely restricted or prohibited at all military posts. On December 16, 1900, General Miles testifying before a Senate committee said that it was at his suggestion that President Hayes, in 1881 issued an order prohibiting the sale of intoxicating liquors at military posts.

The officers of the American army have, undoubtedly the ability to maintain thorough discipline. There is no need to have a vice exist and consider it a necessary one; let the vice be entirely eradicated.

A drunken man or a hibitual drinker, necessarily will not be as readily disciplined as a sober man. A sober man, undoubtedly, is more equal in military skill and strategy than the intoxicated man.

"American Medicine" for Nov. 9th, 1901, in an editorial, "Army dicipline in 1900 and 1901," says; "In the year 1900 (befor the abolition of the canteen) there were 6020 convictions by court martial and in 1901 (after the abolition) there were 5184." If so much is gained in ten months what may not several years show?

In the the Journal of the American Medical Association for June 15, 1900, in an excellently written editorial entitled, "The relations between alcohoblic indulgence and veneral disease," we quote as follows: "Now, alcohol gives rise to certain physiologic effects that may result either in simple functional disturbances or in actual structual organic disease. While alcohol is primarily a stimulant it becomes when taken in large amounts or for long periods a depressant, lowering inhibitory activity, especially as exhited in psychic sphere. It is in this way that it leads to sexual abuse and that it acts as a predisposing cause of veneral diseases.

Let this matter be managed by the proper persons in authority and the right will be maintainee.

Let the army of the United States be such that it will represent the American Nation as a christian civilized one in the broadest sense of the term.

IMPORTANCE OF EARLY DETECTION AND RECOGNITION OF PERI AND ENDO-CARDITIS.

Among the serious ills with which the human family are affected and of which for more than a score of years have been conspicuous in the cause of death, in many cases men or individuals of prominence, persons who are earnest in some enterprise or who have been thoroughly active in some prominent or leading avocation. These cases occurring largely with people who were recognized otherwise in apparent good health. Coming often like the peal of thunder from a clear sky. It is that of Cardiac failure or paralysis.

These cases occurring as the sequella of some infectious disease which was treated and from the effect of which insideously a peri or endo-carditis resulted. This has progressed without even attracting the attention of the individual himself that any serious condition was making inroads upon the economy of this vital organ.

Most of these cases in the past have been traced to the effect of the infectious condition in Rheumatism as well as other diseases of infectious origin. During the last decade and more, this country at various times has so severely been prostrated by influenza, which has left its foot-prints on the human family and sewed the seed for an abundant crop of Cardiac Complications and conditions, which, unless detected earley and counteracted or relieved will undoubtedly leave their evil in many persons otherwise endowed with a robust constitution.

The earliest symptoms of degeneration in the econemy of the heart is often very indefinite and unless the utmost care and

skill is exhauted in seeking out signs of the possible abnormal conditions nothing will be observed or recognized until the pathological condition develops and becomes a serious valvular disease.

Frank Billings, M. D. of Chicago, in a paper read at the St. Paul meeting of the A. M. Association, in a symposium on peri-carditis said, Peri-carditis is essetially a secondary process, occurring in the course of some general infection. The local manifestations may be so slight as to escape observation and the general symptoms to which the local disease may give rise, may be obscured by the conditional disturbance of the primary general infection. It happens therefore that the diagnosis of peri-carditis is more often made at the autopsy than clinicaly.

Frank P. Norbury, M. D. of Jacksonville on some points of the treatment of peri-carditis says: "In the beginning of my pathological experience in hospital service, it was surprising to me to find how frequently evidences of former peri-carditis occurred. Later, I found how easy it was to overlook this disease, and how inadvertently good treatment was frequently practiced by the absolute rest given the patient."

We should strive earenestly to observe whether there exist any signs or possible heart complications in the treatment of all our infectious diseases and have the patient continue that absolute rest and quiet until all such danger in past.

Osler in his Practice of Medicine, 1901 edition, speaking of Chronic Endo-carditis, says: "It is essentially a slow insidious process which leads to deformity of the valve segment and is the foundation of chronic valvular disease."

The importance of detecting endo and peri-carditis are equally necessary as the developments of each are from similar causes and each occur insiduously alike.

TETANUS FOLLOWING VACCINATION---NATIONAL COMMISSION OF INVESTIGATION SUGGESTED.

Recently the daily newspapers have been filled with padded articles regarding cases of Tetanus in children following vaccination. That accidents of this kind should happen when the country is so seriously threatened by a visitation of smallpox is extremely unfortunate to say the least.

One of the fortunate conditions to prevail, would be a calm recognition of the fact of a threatened invasion, so that everyone would use the utmost precaution and would be ready to profit by every means of prevention in a most acquiescent manner. The nearer the abscence of all panicky sentiment regarding an epidemic or disease the better it will be for the masses and for those whose duty it is to fight this enemy. While there seems to be some apparent foundation for this view of these cases, it does no good to have it exaggerated, and the matter should be left in the hands of those whose duty it is to deal with the condition. That the cause of the development of Tetanus was in the virus which was used, we do not believe. However in the cities where these unfortunate accidents have occurred the authorities should investigate most thoroughly and the facts made plain. In that way all objections will be removed which is so important when this epidemic is with us.

The anti-vaccinationists pounce upon all such occurrences, or reports and make capital of them to gain force for their course of interference with progress and truth.

With a distrust existing here and there among the masses, and questions unsettled with some members of the profession as to what form is best to use, the dried virus on points, or the glycerinated form in hermetically sealed tubes, there presents the importance of the appointment of a national commission of medical men to examine critically into these matters, make an authoritative report and thus remove these difficulties to a thorough vacccination of our population, so that we may have the full benefit of the prevention to this enemy.

The suggestion of such a committee has been made quite frequently during the past year. American Medicine for Nov. 26, endorses the movement and quotes from the Cleveland Medical Journal on the subject, Dr. Chas. Goode, of New York, expresses the importance of such a commission in an ably written article in the same number of American Medicine.

A similar misfortune has happened in St. Louis both after vaccination and following the use of Anti-Toxine of Diphtheria. This also should receive the attention of the same national commission or a special one. We have the example of the British Royal Commission which recently made an elaborate investigation of vaccination and of virus and rendered a complete report. We need to follow this movement. When the United States does not lead in wise measures she should be quick to follow, especially where the need is so important.

The Editor of American Medicine, speaking of "The Tetanus Complications," says: "The principal itself is unquestioned; it is the cause and method of action of the

complication that is to be determined. It would be a terrible public calamity if because of some minor errors we should be stampeded by fright and ignorant prejudice into forgetfulness of our foremost duty of safeguarding the public health. Until the method whereby the Tetanus germs have entered the human system with inoculations has been determined it may be well to suspend compulsory vaccination in places where the disease is prevalent, but only upon condition that the investigation is immediate and thorough."

SMALLPOX---WHY IT CONTINUES AND WHAT SHOULD BE DONE TO ABATE IT.

That smallpox is epidemic and widespread in the United States is recognized. Its ravages have assumed unfortunate malignancy, which condition has become more marked or characterized during the latter months of its existence with us. That such promised to be the condition we foreshadowed in an editorial in the October number of this Journal.

That this old and well-known disease should assume such proportions in a country enlightened and so thoroughly conversant with State medicine and National quarantine, as we profess, is undoubtedly a great discredit to us.

That the disease was not properly recognized at its first appearance in this country and most thoroughly quarantined, was most certainly a blunder. Had the disease been faithfully diagnosed under its old time familiar name instead of by fancy unfamiliar and misleading titles, and to have been dealt with in the severe and thorough manner and by preventive measures so well understood and recognized by the profession in our country, it would have had a short existence and would have been blotted out in its infancy. The disposition of medical men to deceive themselves and the people when the disease first appeared was the error which gave the loathsome disease its chance to spread.

The external prevalence which this disease has assumed will continue unless measures extensive and radical are waged against it to check its spreading and blot it out. In some cases where it has been recognized and its presence ackowledged in the past, the quarantine and disinfection have too frequently been very carelessly or indefinitely done. It has been known where but one pound of sulphur was used and expected to fumigate many thousand cubic feet of space.

On so many occasions the disease has been miscalled, or its presence denied, even by members of the profession; and those in authority being by reason of such sentiment, unable to maintain strict quarantine or carry out proper disinfection and other means of prevention.

Chapman, in American Medical Compend (Toledo, Ohio) for November, in his article, "Why the present epidemic of smallpox is likely to continue," maintains and points out three causes for the continuance of the epidemic. 1st. Mistakes or tardy diagnosis; 2nd. Failure to enforce quarantine; 3rd. Inattention to vaccination, either in the insertion of the virus or lack of observation of the patient afterwards.

Let every means be used to clear our country of this vile epidemic, and thus to effece the reflection which rests upon the profession, especially our sanitarians.

Let every physician in the United States make himself familiar with the disease in all of its appearances under all conditions of mildness and malignancy. When he recognizes a case let him declare and maintain quarantine. Let this quarantine be continued by the State autorities. Let disinfection and fumigation be thorough. Make vaccination complete in every state, corporation, precinct and school district. In the words of Cleeman, Philadelphia Medical Journal for Nov. 23, 1901, "The compulsory vaccination law, which prohibits a child from attending a public school, unless it has furnished a certificate of successful vaccination is a useful and far reaching act; and it should be extended to include all institutions, public or private where children are received; and that vaccination should be made a prerequisite to entrance into the civil service, the Army, Navy and Malitia. No imigrant should be permitted to land on our shores unless similarly protected from smallpox.

A RELIABLE PHARMACEUTICAL HOUSE.

Among the various reliable drug and pharmaceutical houses of the United States that of Parke Davis & Co., of Detroit, Mich., stands out conspicuous.

In the practice of every physician and surgeon it is a very desirable and necessary matter, that whatever drug or product he uses in his efforts in conducting the treatment of a case, that it be entirely reliable, and that it is perfect in its make up and that he can depend upon getting the result which he expects and wishes. To have this confidence he must know that the house preparing the article is one of entire reliability and to be justly depended upon. That the house of Parke Davis & Co., is of such a

character among the reliable firms of our country it gives us much pleasure to recognize. We are pleased to learn from a representative of this house that in none of the recent fatalities following vaccination at various cities in the United States and St. Johns, N. B., had the vaccine virus from the laboratories of this house been used.

Such a record, however, certainly speaks well for the ideal perfection of the product of Parke Davis & Co., especially when it is recognized that following the use of their vaccine virus and serum no untoward results have ever followed, either by coincidence or by cause and effect, the application of vaccine virus or serum bearing their name.

BOOK REVIEWS.

A System of Physiologic Therapeutics. A Practical Exposition of the Methods, other than Drug-Giving, Useful in the Prevention of Disease and in the Treatment of the Sick. Edited by Solomon Solis Cohen, A.M., M.D., Professor of Medicine and Therapeutics in the Philadelphia Polyclinic; Lecturer on Clinical Medicine at Jefferson Medical College; Physician to the Philadelphia Hospital etc. Volume III—Climatology, Health Resorts, Mineral Springs. By F. Parkes Weber, A.M., M.D., F.R.C.P. (Lond.) Physician to the German Hospital, Dalston; Assistant Physician North London Hospital for consumption, etc. With the Collaboration for America of Guy Hinsdale, A.M., M.D., Secretary of the American Climatological Association, etc. In two Books. Book 1, Principles of Climatotherapy—Ocean Voyages—Mediterranean, European and British Health Resorts. Book II. Mineral Springs, Therapeutics, etc. Illustrated with Maps. Price for the complete set, $22.00 net.

These are the third and fourth volumes of Cohen's system of physologic therapeutics, whose timeliness has already been commented upon. The first part treats of the factors of climate, with their effect on physiologic functions and pathological conditions, and describes the fundamental principles that underlie the application of climates, health resorts and mineral springs in the prevention of disease, and to promote the comfort and recovery of the sick.

The second part describes health resorts; and the third part discusses in detail the special climatic treatment of various diseases and different classes of patients. Book II, also describes the health resorts in Africa, Asia, Australasia and America.

In book I, ocean voyages are first treated of with considerable detail and their advantages and disadvantages, indications and counter-indications as a therapeutic measure, are pointed out. As very little exact information on this important subject exists in an available form, this chapter should be of great use to physicians. The subject of altitude is treated in a similarly full and definite manner, and not only are we told what classes of patients and disorders are benefited by Alpine and Rocky Mountain climates, but also what classes are unsuitable for such treatment. The difference between summer and winter climates in Switzerland, and the therapeutic indications for the different seasons are discussed at length. In addition the seacoast and inland health resorts of the Mediterranean countries, those of Continental Europe and those of the British Islands, including mountain stations of various elevations. plains, and mineral water spas, are described, with no waste of words, but with a fullness of detail unusual in medical books. Not only geographic and climatic featuers are pointed out, but also social and other characteristics so important in selecting a resort that shall be suitable to the tastes and means of the individual patient, as well as beneficial to the disease. Throughout this section allusion is made to the special medical uses of the various resorts described, and to the particular form of treatment for which any one is famous.

The existance of sanatoriums for special diseases, as though at seaside resorts for scrofulous and weakly children, and in various regions for consumption, nervous affections. diseases of women, and the like are specified; and the mere list of such places. as found in the index, are likely to prove invaluable for reference. We know none other so complete. A mere glance at the closely printed pages of the index will show how unusually full is the treatment of special resorts and their particular qualities. Like the preceding volumes reflects credit alike on authors and editor. Every phyician should have a set of these books. P. Blakiston's Son & Co. of Philadelphia are the publishers.

The Physician's Visiting List for 1892 Philadelphia. P. Blakiston's Son & Co.

This List has become one of the institutions of this country, professionally speaking. This being the fifty-first year of its appearance, the rank and file of the profession do not need to have their attention called to this standard publication. Only

the younger members—recent graduates—needs to be reminded of its special features, which have been constantly advanced as the needs of the busy practitioner have suggested changes, until it is now at about high-water mark of perfection.

Very few publications live half a century. Its stability is its best certificate of character.

Progressive Medicine, Vol. IV., 1901. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octa, handsomely bound in cloth, 400 pages, 13 illustrations. Per annum, in four cloth-bound volumes, $10.00. Lea Brothers and Co., Philadelphia and New York.

As usual with the volumes of this publication the contents for December are of such a varied and practical character as to appeal to all cases of medical men.

Under Diseases of the Digestive Tract and Allied Organs Dr. Einhorn covers with great thoroughness the medical and surgical treatment of pathological conditions of the œsophagus, stomach, liver, pancreas and peritoneum. Among the important subjects considered are pancreatic disease, the importance of which has lately been brought so prominently before the professional mind; diseases of the liver, the surgical treatment of which has proved so efficacious; and the ever recurring topic of appendicitis. In Dr. Belfield's section on Genito-Urinary Diseases the subject of general infection by the gonococcus is fully discussed, and tuberculosis of genito-urinary tract receives the attention which its importance demands. Dr. Bloodgood's article opens with an especially full and important discussion of all the methods of producing anesthesia, both general and local; their relative value as regards efficiency and safety. In connection with this he gives a description of technique of lumbar puncture, its diagnostic and therapeutic importance and its use in spinal anesthetization. Wound treatment, infection, diabetic gangrene, are all considered at some length, and there is an especially valuable discussion on the importance of the examination of the blood in surgical cases. The various pathological conditions of the kidneys are ably treated by Dr. John Rose Bradford. Particularly instructive is his discussion of the various forms of albuminuria and the varieties of urema. Dr. Brubaker's section on Physiology presents the recent advances in the physiology of glandular system with special reference to the therapeutic value of glands extracts in their therapeutic application. He also presents the most recent conclusions on the study of artificial fertilization. The section on Hygiene by Dr. Baker is notable because of the universal interest excited by the discussion aroused by Dr. Koch's statement that bovine tuberculosis is not dangerous to man, and the recent researches as regards the transmission of yellow fever. The Practical Therapeutic Referendum by Dr. E. Quin Thornton, although placed last in the book, possesses the greatest general interest and value to all practicing physicians. All the recent therapeutic methods and remedies are presented and their merits and demerits impartially discussed. It constitutes a therapeutic manual of the most advanced methods of treatment.

In this brief synopsis of the contents only the most prominent features are touched upon. In each section every recent advance of value in relation to the diseases described is fully written of and from the most practical standpoint. The contributors are all authorities of the highest standing. The book is not a mere complication of recent literature, but a series of critical reviews and original papers by masters of the subjects whereof they treat.

A treatise on Surgery by American Authors. For students and practitioners of Medicine and Surgery. Edited by Roswell Park, M.D., Professor of Surgery in the University of Buffalo, N. Y. New (3) Edition in one Royal Octavo Volume of 1350 pages with 692 engravings and 64 ful-page plates in colors and monochrome. Cloth, $7.00, net; leather, $8.00 net. Lea Brothers & Co., Philadelphia and New York.

A new edition of *Park's Surgery*, the third in five years, speaks well for the book and for the activity of American interest in its subject. This country is now abreast of the world in surgery, and it is owing to such men as Dr. Park and his fellow collaborators, that this is a fact. He planned his book well, knowing the needs of student, general practitioner and surgeon, and he secured authorities of the highest standing for its various chapters. The result is that the work represents the best special knowledge on each subject. Surgeons can consult it as a reference-book and a safe guide in the perplexities of practice, and they will appreciate the clearness which is such a boon to the student. It is logically built-up, first the principles then the prac-

tice, in all departments. Thus it suits students of all ages, pre- and post-graduate. The illustrations deserve mention. Always liberal and elaborate, they have been further enriched in this edition, until the text is illuminated with nearly seven hundred pictures and no less than sixty-four full-page plates in colors and monochrome.

Americans love a comprehensive book, and have little time for referring from one volume to another. In *Park's Surgery* this national trait is gratified, for it contains Surgery within one pair of covers and at a most moderate price considering the size and beauty of this work. The revision has been most thorough, bringing the book to the latest date

An International System of Electro-Therapeutics. For Students, General Practitioners. By Numerous Associated Authors. Edited by Horatio R. Bigelow, M. D., Permanent Member of the American Medical Associaeion; Fellow of the British Gynecological Society of America and the American Electro-Therapeutic Association; Member of the Philadelphia Obstetrical Society, of the Societe Francaise d'Electro-Therapie, and of the Anthropological and Biological Societies of Washington, D. C.; Author of "Gynecological Electro-Therapeutics," and "Familiar Talks on Electricity and Batteries." Second Edition. Revised and brought up to date, with several Nrw Departments embodying the most Recent Developments of the Science. Edited by G. Betton Massey, M. D., ex-President and Fellow of the American Electro-Thearpeutic Association; Member of the American Medical Associa tion; Author of "Conservative Gynecology and Electro-Therapeutics," etc. Thoroughly Illustrated. Royal Octavo. Pages x-1147. Prices net Delivered, Extra Cloth, $6.00; Half-russia, $7.50. Philadelphia: F. A. Davis Company, Publishers, 1914-16 Cherry Street.

The first edition of Bigelows Electro-Therapeutics was favorably described in this Journal several years ago. During these years we have refered to it oftener than any other book in our library.

There is a demand for more through instruction in Electro-Therapeutics in our colleges, and almost every student of medicine appreciates that it has a very important bearing in diagnosis as well as treatment. Heretofore compends only were furnished for the guide of those who desired to study electricity as a remedial agent, and it is reasonable to draw the conclusion that these were superficial and condensed in their makeup that more comprehensive works became a necessity. The volume under consideration possesses great value as a reference book for both student and practitioner setting forth with clearness the minutia which is important in obtaining a thorough knowledge of this department of medical science. The present edition contains four new articles, namely, those relating to the Galvanic Current, the Electrical Treatment of Aneurism, Roentgen rays, and the Toeatment of Cancer by the Cataphoresis of Mercury. The author and his associates are especially eminent in their respective lines of practice and very learnedly outlined the details to be adopted in the treatment of diseases wherever electricity has been shown to be a successful therapeutic agenr It is a superb work for the surgeon, general practitioner and specialist, and a library is deficient without it. The general makeup of the work, including the paper. text and the illustration, reflect great credit upon the authors and publishers.

A Treatise on the Acute, Infectious Exanthemata, Including Variola, Rubeolo, Scarlatina, Rubella, Varicella, and Vaccina, with especial reference to Diagnosis and Treatment. By William Thomas Corlett, M.D., L.C.R.P., Lond., Professor of Dermatology and Syphilology in Western Reserve University; Physician for Diseases of the Skin to Lakeside Hospital; Consulting Dermatologist to Charity Hospital, St. Alexis Hospital, and the City Hospital. Cleveland; Member of the American Dermatological Association and the Dermatological Society of Great Britain and Ireland. Illustrated by 12 colored plated, 28 half-tone plates from life, and 2 engravings. Pages, viii-392. Size, $6\frac{1}{4}$x$9\frac{1}{4}$ inchess. Sold only by subscription. Price, extra cloth, $4.00 net, delivered. Philadelphia. F. A. Davis Company, Publishers, 1914-16 Cherry Street.

We know of no work in special lines that must prove so valuable as will this in overcoming the difficulties and discomfiture of the physician, both young and old, in the diagnosis of the infectious exanthemata. It will not do now-a-days to over-look a case of this kind in any State or community. The eyes of the Health Boards are upon every suspicious case, and a physician's reputation depends largely in these times, upon his diagnostic ability.

This book takes the place, or supplies the deficiency of clinical or bedside instruction. How many physicians in their student days

had the advantage of hospital wards? Very few indeed. This department of medicine is perhaps the most difficult to teach, and has the fewest facilities and opportunities at its disposal.

In this work the description of the several diseases is as complete as is consistent with brevity. It seems to us a very clear exposition of the several diseases. There is nothing more truthful in bringing out detail than photography, and the half-tones here presented are the heighth of this art. The colored plates show the delicate shades particular to each disease as well as their various stages and the conditions most liable to mark their appearance.

The book will prove invaluable to the general practitioner.

The Four Epochs of Woman's Life. A Study in Hygiene. By Anna E. Galbraith, M. D., Author of "Hygiene and Physical Culture for Women;" Fellow of New York Academey of Medicine, etc. With an Introductory Note by John H. Husser, M. D., Professor of Clinical Medicine, University of Pennsylvania. 12mo volume of 200 pagess, Philadelphia and London: W. B. Saunders & Company, 1901. Cloth, $1.25, net.

Women have at last awakened to a sense of the penalties they have paid for their ignorance of those laws of nature which govern their physical being, and to feel keenly the necessity for instruction in the fundamental principles which underlie the epochs of their lives.

This is pre-eminently the day of preventive medicine. The physician who can prevent the orign of disease is a greater benefactor than he who can lessen the mortality or suffering after the disease has occurred. Any contribution, therefore, to the physical, and hence to the mental, perfection of woman should be welcomed alike by her own sex, by the thoughtful citizen, by the political economist, and by the hygienist.

In this instructive work are stated, in a modest, pleasing, and conclusive manner, those truths which every woman should have a thorough knowledge. Written as it is for the laity, the suject is discussed in clear, comprehensive language, readily grasped even by those most unfamiliar with medical subjects. A valuable and commendable feature of this handy volume of instructive information is a comprehensive glossary of those medical terms necssary to a thorough understanding of the subject under discussion. Without doubt, it is a book that should recieve the thoughtful consideration of every woman.

Essentials of Physiology. Prepared especially for Students of Medicine; and arranged with questions following each chapter. By Sidney P. Budgett, M.D., Professor of Physiology, Medical Department of Washington University, St. Louis. 16mo volume of 233 pages, finely illustrated with many full page half-tones. Philadelphia and London. W. B. Saunders & Co., 1901. Cloth, $1.00 net.

This is an entirely new work and a worthy accession to Saunder's excellent series of Question Compends. It aims to furnish material with which students may lay a broad foundation for latter amplification, and to serve as an aid to an intelligent consultation of the more elaborate textbook. The subject of Physiology is covered completely, and, the author of the work of being a teacher of wide experience, the salient points are particularly emphasized. An important feature is the series of well-selected questions following each chaper, summarizing what has previously been read, and at the same time serving to fix the essential facts in the mind. Nearly all the illustrations are full-page half-tones, and have been selected with especial thought of the student's needs. In every way the work is all that could be desired as a student's aid.

The Medical News Visiting List for 1902. Weekly (dated for 30 patients); monthly (undated, for 120 patients per month), etc., with pocket pencil and rubber. Seal grain leather, $1.25. Thumb-letter index, 25 cents extra. Philadelphia and New York · Lea Brothers & Co., New York.

A visiting list is an indespensable convenience for the active practitioner. Probably the best and most convenient of the many publications of this nature is the "Medical News" Visiting list. Its blank pages are arranged to classify and record memoranda and engagements of every description occuring in the practice of the physician, surgeon or obstetrician. It is printed on fine, tough paper, suitable for pen or pencil, and durably and handsomely bound in the size of a wallet or the pocket. When desired, a ready-reference thumb-letter index is furnished, which is an economizer of time.

Prophylaxis and Treatment of Pulmonary Tuberculosis. By. S. A. Knoff, M.D. P. Blakiston's Son & Co., Publishers, Philadelphia.

This is a book of 342 pages, beautifully illustrated and printed. It treats of the history and the prevalency of tuberculosis

in different races and different localities. It gives in detail the sources in which the bacillus can be introduced into the system and the methods by which these avenues can be blocked. The book is intended for nurses as well as physicians.

On this specisl line, there is no book as well written and as valuable as this volume.

The Standard Medical Manual. A Hand-Book of Pratical Medicine. By Alfred S. Burdic, M. D., Junior Professor of Practiae of medicine, Illinois Medical College; Member of the American Medical Association, the Illinois State Medical Society, etc. Pages, 921. Illustrated. Price, Cloth, $4.00. G. P. Engelhard & Co , Chicago.

Much in this portly volume will be found of real practical value and has been collected with great care by the talented author. It gives in brief the most important facts concerning the etiology, pathology and symptomatology of the diseases treated, but dwelling with special detal and fulness on the subject of treatment. In order to secure completion and accuracy, the principal works on general and special medicine have been freely consulted and utilized, while hundreds of journal articles have been read and the practical ideas found in them embodied in the book so far as possible in a volume of this size. It is an excellent book, in every particular and well worth four dollars.

Libertinism and Marriage. By Dr. Louis Jullien (Paris). Surgeon of Saint-Lazare Prison. Translated by R. B. Douglas. Extra cloth, $1.00 uet deliverd.

Of late years the protency of gonorrnœa as a factor in producing the various diseases of women, has become quite generally recognized.

In this little book the author has only touched upon gynæcology, but his attitude towards the marriage of imperfectly cured men is that of emphatic opposition.

The book is interesting, and in dealing with the predicaments in which every practitioner is placed by suspicious husbands, wives and lovers, the authar gives many valuable suggestions which every physician might profit by. Some of the incidents recited for illustration are quite amusing and as a whole the book is interesting as well as instructive.

Transactions of the American Surgical Association. Vol. XIX. 1901.

This volume is edited by Dr. Richard H. Harte, Recorder of the Association. It contains 514 pages, and is nicely printed and bound. Among the thirty-papers published, we notice one from Deaver, entitled "The Examination of the Blood in Relation to Surgery and Science," but often no Practical Value and may Misguide the Surgeon. The address of the President, Roswell Park, is one of unusual interest, and it would benefit any physicain or surgeon to read it.

Transactions of the American ElectroTherapeutic Association—Price, Extra Cloth, $2.00 net, Delivered.

This book of the transaction of the Association during 1899 and 1900, is really a record of the substantial advance which has been made in Electro-therapeutics and as such is of value to every man who has so much as a dry-cell battery. To the man who is so fortunate as to posess a Shield's volt-graduater or a static machine the papers and discoussions are of much value, for it is to such apparatus that investigators have now turned their attention.

The transactions make a handsome volume, and should be in every physicians library.

Transactions of the Louisiana State Medical Society, Twenty-Second Annual Session. 1901.

This society publishes a large volume of proceedings every year. It is one of the most progressive medical societies in the South. The names of many of its members are often seen and quoted in the medical literature of the day.

The President is Dr. T. E. Schumpert, of Shreveport, and Dr. F. A. Larne, of New Orleans, is Secretary.

Transactions of the Texas Medical Association, Vol. XXXIII. 1901.

We have received the Transactions of this Association for a great many years and the proceedings this year are equal, really superior, to any of the former volumes. It contains 463 pages, with a great many beautiful illustrations, Dr. H. A. West, of Galveston, is Secretary. He deserves much praise for editing and publishing these transactions so correctly and promptly. The Association has about four hundred members.

Transactions of the Wisconsin State Medical Society. Vol. XXXV, 1901.

In a neat binding, printed on white paper with clear new type, these transactions come to us from year to year. This volume contains 516 pages and many of the papers here published are practical, scientific and will compare favoraly with those found in any other similar volume. Dr. Charles S. Sheldon, of Modeson, is Secretary.

LITERARY NOTES.

THE JANUARY LIPPINCOTT'S MAGAZINE.—John Luther Long's new novel, "Naughty Nan," is published entire in the January number of Lippincott's Magazine. After awhile it will be brought out in a book-form, costing four or five times the price of of the magazine form. In this tale Mr. Long proves that he is a master hand at love-making in other lands than Japan, and in picturing the tender passion of a wilful New York girl he excels himself. Nan's aunt calls upon a favorite nephew to save Nan from a flock of matrimonially inclined men, so that the girl may "remember Cawdor," a theological student to whom her aunt has allotted her. Cawdor writes "laday-like letters" from across the sea, which fill his sweetheart with a desire to give him a severe shock. The comedy that follows is deliciously witty yet is tender throughout, while the title of the closing chapter sums it all up in the words "And my arms opened—and closed upon—Nan."

Lippincott's short stories all deal with some specially human subject of the times. Louis Zangwill writes about a woman whose husband has deserted her and their child. After a struggle the woman makes a secure place for her son, who believes his father to be dead. Whether this woman should have taken a different course when the husband reappears is a nice question for the reader to answer. It is called "The Mother." "The Seal of Silence," a brief tale of much dramatic power, is by Albert Payson Turhune. "A Fair Exchange," by Will N. Harben, is a story of a would-be suicide in Paris.

With rumors of the Pope's declining health, people look forward to what will happen when the church shall be called upon to accept a successor in the chair of St. Peter. The paper, entitled "The Passing of the Pope," contributed by Mrs. Belloc-Lowndes to Lippicott's Magazine, tells in a vivid yet reverent way just how a new Pope will be elected and crowned,

There is an important posthumous paper by Sidney Lanier, entitle "Music of Shakaspere's Time," in the January Lippincott's. This is published in two parts, and deals with a scholarly subject in a conversational vein.

The verse of the month is contributed by Paul Laurence Dunbar, "A Roadway;" Florence Earle Coats, "Rouen; In the Prison Joan of Arc;" William Roscoe Thayer, "Doubt, the Revealer;" Edmund Vance Cooke, "The Tempter;" and John B. Tabb, "Outlines."

The "Walnuts and Wine" department well fulfils its purpose to amuse, in offering humor from the following pens: J. L. Harbour, Fred. V. Fletcher, Charles Battall Loomis, Charles McIlvaine, Amos R. Wells, Coroline Lockhart and others.

The January Forum opens with an article by Rear-Admiral G. W. Melville on "The Military Duty of the Engineering Institutions." The writer suggests the formulation of a plan to enable the civil scientific colleges to supplement the work of West Point and Annapolis. Prof. Paul S. Reinsch describes the opportunities afforded by "A New Era in Mexico." Two educational subjects are then discussed: "The Place of Geography in the Elementary Schools," by Dr, W. T. Harris, the Commissioner of education, and ,'Problems of Our Educational System," by President Hyde, of Bowdoin. The list of contents includes papers on several subjects which will shortly be receiving attention in Congress. Among these are a plea for "Reciprocity with Canada," by Hon. John Charlton, a member of the Anglo-American Joint High Commission; a free-trade argument by Jacob Schœnhof under the title of "The Rake's Progress in Tariff Legislation"; an examination, by Congressman John F. Shafroth, of the connection between "The Philippines and Our Military Power"; an article by Marrion Wilcox on "Our Honor and Cuba's Need"; an account by Sunyowe Pang, an Americanized Chinaman, of "The Chinese in America," with special reference to the Chinese Exclusion Act; and a discussion by Prof. Elwood Mead of "Problems of Irrigation Legislation." Earl Mayo contributes an estimate of the extent to which "The Americanization of England" has already proceeded The closing paper is Prof. Brander Matthews, who writes on "Mr. Howells as a Critic," with particular notice of his recent book on the "Heroines of Fiction."

THE LIVING AGE FOR 1902. During the fifty-eight years of its existence this sterling weekly magazine has steadily maintained its high standard. It is a thoroughly satisfactory compilation of the most valable literature of the day, and as such is unrivalled. As periodicals of all sorts continue to multiply, this magazine continues to increase in value; and it has become quite indispensable to the American reader. By its aid alone he can, with economy of time, labor, and money otherwise impracticable, keep well abreast with the literary and scientific progress of the age and

with the work of the ablest living writers. It is the most comprehensive of magazines. and its prospectus is well worth the attention of all who are selecting their reading matter for the New Year. To all new subscribers for 1902, the publishers offer free the seventeen weekly issues for the four months September to December, 1901, inclusive, until the edition is exhausted. Intending subscribers should hasten to avail themselves of this generous offer. The Living Age Co., Boston, are the publishers.

ABSTRACTS of the Leading Articles of the Month.

Acute Yellow Atrophy of the Liver.

T. R. Bradshaw, (British Medical Journal, November 30, 1901.) The most obvious symptoms of the disease are intense gastro-intestinal disturbance, extreme prostration with nervous symptoms, jaundice, and in most cases rapid diminution in the area of liver dullness. The process of which the liver is the subject is an acute inflammatory one characterized by granulation and disappearance of the hepatic cells and congestion and round-celled infiltration of the stroma of the organ. The plugging of the capillary bile ducts is probably analogous to the formation of casts in acute nephritis, and explains the existence of jaundice in cases of this kind. The cause of this remarkable disease is still to seek. We are probably justified in assuming that the inflammatory and destructive change in the liver are due to the action of some poison derived from the alimentary canal, but as to its nature or mode of production we are entirely in the dark. Bacteriological examination has given varying results. Most Probably when organisms have been found they have been present as a secondary infection, their growth being favored by the lowered vitality of the tissues. The toxic origin of the disease is supposed to recieve support from what is known of the action of phosphorus on the liver,

The prognosis is extremely grave, though, perhaps, not altogether, hopeless, since recovery has been recorded in undoubted cases. Although the majority of cases of simple jaundice are among the mildest of diseases which come under onr notice, yet they should never be lightly regarded; what has all the appearance of an affection which will pass off in a few days, may in reality be the beginning of a formidable disease, which will carry off the patient in as short a time.

A Century of Vaccination.

Dr. Eloy M. Crandall, (American Medicine, December 7, 1901). The experience of a century has demonstrated that: 1. Vaccination in infancy, renewed at the end of childhood, renders an individual practically as safe from death from smalldox as if that disease had been survived in childhood, and almost as safe from attack. 2. In the face of an epidemic, vaccination of all who have not been vaccinated within five or six years, is given the "benifit of a doubt." Every one who has been vaccinated in infancy and childhood, should be vaccinated not less than once in adult life. 3. The immunity conferred by vaccination is in direct proportion to the thoroughness with which it is performed, and this is shown with considerable accurracy by the character and number of the resulting scars. 4. Vaccination in infancy alone is not sufficient wholly to prevent smallpvx among the adult population. 5. Optional vaccination has not proved sufficient to protect the community from smallpox. Compulsory vaccination is warranted by all experience. 6. The mild compulsion enforced in this country, by requiring vaccination or evidence of its recent performance upon admission to the public schools. should have the hearty support of parents and physicians alike.

A New Sign of Hysterical Hip Disease

Jas. Putnam M. D., (Journal American Medical Association, May 4, 1901), states that absolute increase of measurement from the anterior superior iliac spine to the internal malleolus is a sign of hysterical hip disease. The differential diagnosis between tuberculous and hysterical hip disease is sometimes easy, but sometimes very difficult, while a correct diagnosis is always of great importance. Wheras in tuberculous disease the erosion and absorption of the bone shortens the measurement from spine to malleolus, in hysterical hip disease this measure is sometimes longer on the affected side. The explanation of this was given by Hasted—namely, that the affected leg is abducted in hysteria, while the opposite leg with which comparison is made, is abducted. The pelvis is literally tilted in such cases, and is probably due to the contracture of the muscles of the affected thigh. The presence of other symptoms characteristic of hysteria will confirm the diagnosis. There, according to Gilles de la Tourette, includes pain and tender spots of various points along the affected limb, marked cutaneous hyperæsthesia, absence of nocturnal paroxysms, the presence of hysterical

œdema about the affected joint and limb, involvement of the knee muscles in the rigidity, coldness of the affected parts, and the presence of fits and the mental "stigmata" of hysteria. In a patient aged 30 years, who fell through a trapdoor and struck her hip and the back of her feet on the floor five feet lower, the symptoms of hip disease, with contracture and hyperæsthesia, and pain on passive motion were present. The attitude and measurements corresponded with those of hysterical hip disease, and hemianæsthesia was also noticed. Œdema of the hip persisted for a long time, and the entire left leg was cooler than the right. The keen-jerk and plantar reflex was also exaggerated in this leg. On examination under ether, the differences disappeared, the movements of the hip-joint were free, the measurements normal, and the feet and whole appearance of the two hips became essentially alike on the two sides.

Ætiology of Pericarditis.

Robert B. Preble, (Journal of the American Medical Association, Dec. 7, 1901,) Cases of acute pericarditis, clinically primary, occur, but are rare. Diseases to which pericarditis appears a complication are in order of their frequency: Pneumonia thirty-four per cent.; rheumatism, twenty-eight per cent.. plus; chronic diffuse nephritis, eleven per cent., plus; tuberculosis, ten per cent.; sepsis, five per cent., minus; aneurism, three per cent., minus; typhoid,oneand seven-tenths per cent. The more extensive a pneumonia, the greater is the danger of this complication. With left-sided pneumonia the danger is the greater. Rheumatic pericarditis is complicated by endocarditis in sixty per cent. of the cases. The danger of pericarditis complicating rheumatism is greater the younger the individual, and is somewhat greater among males than females. So far as acute pericarditis is concerned, the site and extent of the endocarditis is apparently of no importance. Pericarditis occurs with all forms of nephritis, but particularly with the chronic diffuse nephritis with contraction. Pericarditis must be regarded as a rare complication of tuberculosis. The cases of obliteration of the pericardium are due to the following causes arranged in order of importance: Endocarditis, tuberculosis, chronic nephritis, aneurism.

A Case of Suture of a Stab-Wound of the Heart, with Remarks on, and a Table of, Cases Previously Reported.

Dr. George Tully Vaughan, (Medical News, December 7, 1901) believes that the time has arrived when a wound of the heart should be operated on with as little hesitation as a wound of the brain, with the expectation, under corresponding conditions, of getting equally good results. In all cases of wounds in the region of the heart with symptoms threatening life, an exploratory operation should be done by making an osteoplastic flap by dividing the fourth and fifth costal cartilages at their attachments to the sternum and the ribs, about one inch external to their attachment to the cartilage, somewhat according to the method of Roberts. This door gives a good view of the pericardium and can be easily enlarged upward. Early and speedy operation is essential and the importance of asepsis cannot be too strongly emphasized. If there has been much hæmorrhage, physiological salt solution should be used, approximately equal in amount to the blood lost.

Abscess of the Liver.

Elliott, (Annals of Surgery, Oct., 1901) reports three cases. In the first, a woman of 32, had been taken with soreness in the right hypochondrium ten days before admission to the hospital. Her previous history was negative. Swelling and tenderness developed in this region with marked prostration, elevation of temperature and pain. An incision was made along the outer border of the right rectus muscle. With an exploring needle, the abscess cavity was located in the right lobe of the liver 2½ inches from the surface and at the right of the lina alba. Several ounces of pus were removed and iodoform gauze was packed into the wound. The abscess was thoroughly opened with a cautery five days later, and a drainage tube inserted. There was abundant discharge for several weeks. The patient left the hospital at the end of two months with a shallow sinus, and is now in excellent health. In a second case, a man of 38 had been suffering for 2½ months with dull aching pain in the right lumbar region. Two years previously he had had several attacks of diarrhea. His illness was accompanied with considerable prostration and fever, but no jaundice or chills. The liver extended two inches below the costal margin, and in this area there was great tenderness. At the operation pus was located with the exploring needle 1½ inches in the direction upward and backward from the under surface of the right lobe. Iodoform gauze was packed about as in the previous cases, and the abscess was opened four days later with a cautery. The patient's condition improved for ten days, but he gradually became weaker and died. At the necropsy mul-

tiple abscesses of the liver were found, the largest of which had been incised and drained. In a third case, a man was taken with dull aching pain in the right hypochondria region 13 months after a visit to the West Indies. There was malaise, considerable prostration, and for a month there had been daily chills, followed by fever and sweating. The lower border of the liver extended four inches below the costal margin. There was a leukocytosis of 20,000, and the temperature reached 102.5. The abscess was opened directly. Large drainage tubes were inserted and iodoform gauze were packed about. The further progress of the case was satisfactory.

A Case of malarial nephritis with Massage of Parasites in the Kidtey.

Ewing, (American Journal of the Medical Sciences, Nov., 1901). The patient was a girl of 17, who acquired malaria in the vicinity of New York, and who exhibited also the symptoms of acute hemorrhagic nephritis, with partial suppression of urine. Microscopically there was extreme massing of the parasites in the kidney, with extreme and peculiar degeneration of the lining cells of all cortical tubules, distention of the capsules of the glomeruli by granular albuminous coagulum, occlusion of most of the cortical capillaries by the distended tubules, large superficial red and white infarction from occlusion of the vessels by thrombi of infected red cells, numerous miliary hemorrhages, from rupture of distended capillaries distention of nearly all the capiliaries in the medulla and papillas by infected red cells and parasites. casts in the discharging tubules consisting usually of coarsely granular material but sometimes entangling infected red cells and pigmented leukocytes. These lesions are believed to be in large part mechanic and the result of the presence of an excessive number of parasites in the renal capillaries. It is stated that there are 3 main types of acute renal lesions occurring in malaria; (1) Acute degeneration of toxic origin—responsible for the majority of cases of albuminuria in malaria; (2) an extreme form of acute degeneration with focal necrosis numerous hemorrhages, and exudation into the tubules of blood serum and blood pigments—seen especially in hemoglobinuria fever; and (3) massing of parasites in the renal capillaries, with extreme degeneration of the parenchyma cells, multiple hemorrhages, and exudation of blood serum into the tubules—seen only in severe estivoautumnal infections.

Acute Leukemia in Childhood.

Dr. Macrae records (Johns Hopkins Hosp. Bull.,) a case of acute leukemia, of about a month's duration, in a little boy aged three, characterized by anemia, fever, purpuric rash, blood picture of leukemia, hemorrhages, and convulsions, and terminating by death. He draws the following conclusions from a careful analysis of other thirteen recorded cases:

Leukemia is a relatively rare disease in the first decade, only two cases of that condition having occurred in 3,000 autopsies performed by Friedrichshain. As is the case in leukemia at all ages, a large proportion of the patients were males. There was nothing conclusive in the family history of the thirteen cases investigated, as in only one instance was there any evidence of leukemia in the family. The previous history of the children revealed nothing of importance, if we expect affections of the tonsils, which were present in several of the cases, and which may possibly suggest something of a causual relationship. In the Lancet, London, for 1900, vol. i, p. 227, Hunter has referred to the probable association between foci of infection in the mouth, such as carious teeth, and pernicious anemia, considered as a chronic infective disease.

A possible association with the "lymphatic constitution" must also be considered, although Ewing, who discusses this matter (N. Y. Med. Journ., 1897, vol. ii, p. 37), can trace no direct connection between the two conditions.

The onset is usually sudden, and is accompanied by fever in the majority of cases; but, as a rule, the temperature does not rise very high. Hemorrhage from the nose, mouth, stomach, bowels, and kidneys occurred in the majority of cases, and was accompanied by a purpuric rash. Enlargement of the cervical glands, associated with affections of the mouth and tonsils, occurred in half the cases, while general glandular enlargement was present in a smaller proportion. The spleen was enlarged in every case, and the liver also in more than half the series. Miscellaneous symptoms complained of consisted of pains in joints and bones, hemiplegia and priapism.

Marked anemia was always present. The highest count of corpusclcs showed 2,350,000, and the lowest 1,000,000. The percentage of hemoglobin varied from 40 to 18. The degree of anemia in these acute cases is striking, and suggests the possibility of the development of the disease in children already anemic. The red blood corpuscles did not show any rapid fall while the cases were under observation, the possible explanation being that these children had been suffering for some time from leukemia in a

chronic form, and that what was regarded as the whole course was merely an exacerbation at the end. The duration of the cases varied from four to nine weeks. The diagnosis can only be make with certainty through an examination of the blood. The conditions with which it is most apt to be confounded are: (1) An acute infection with specially marked throat symptoms; and,(2) a hemorrhagic purpura. In none of the cases did treatment appear to be of any service.

Acute Intestinal Obstruction following Appendicitis.

L. W. Hotchkiss (Annals of Surgery, Nov., 1901) reviews three cases and sums them up in the follow terms: (1) The great utility and necessity for the free use of decinormal salt solution injected beneath the skin, into the veins during or after the operation as a guard against extreme shock; two of the cases were probably saved by not only free but continual use of it; (2) the great value of free incision into overdistended coils of gut in order to relieve upward pressure against the diaphragm with its disturbance of respiration and circulation; in order to relieve intestinal congestion and distention so that they can be handled without injury and the obstruction located and removed, and in order to drain away the poisonous, stagnant fluid contained in the gut which would otherwise be absorbed; (3) the wisdom of closing the abdomen without drains and of leaving within the cavity sufficient salt solution to float the intestines and assist, perhaps, in their rearrangement. This much for the broad detail of the operation. The after-treatment possesses three essential features also as follows: Persistent and intelligent lavage; early and, if necessary, repeated administrations of concentrated saline purges introduced through the stomach-tube if retained in no other way; the relief of intestinal gas by means of the rectal tube and and of high enemata patiently, persistently and rationally given. A fourth detail should be named, viz., absolute abstention rom the use of morphine.

The Alleged Cure of Cancer by X-Rays.

The following editorial appeared in the Medical Press and Circular, Dec. 5, 1901, and is a just criticism of methods too often resorted to by American physicians. The editor says:

The news of an alleged cure for cancer by an American medical man has, within the last few days, been busily bruited among the public newspapers on this side of the Atlantic. The particular method thus announced is by exposure to the X-rays, or rather to the tube that produces the rays, which in themselves probably possess no healing virture of any kind whatever. There is nothing new in the treatment of cancer by the focus tube, for the plan has been upon its trial by English surgeons for many months past, The statement that the X-rays cure cancer is so utteraly cruel and misleading, however, that it may be well briefly and summarily to nail the lie to the counter. That the method is able to exercise a favorable influence over the surface of an ulcerating and sloughing cancer is an acknowledged fact, but partial healing of a skin surface does not mean the cure of a deep-seated cancerous process. In a word, any man who says he can cure an internal cancer by exposure to the X or any other rays is making claims to which there is no scientific basis; in other words, he is airing falsehoods. When the cancer is of an absolutely superficial kind, affecting only the skin, and known as an epithelioma, there is good evidence to show that it may in some instances be cured by the X-rays method. That is a very different affair from the impression that must neccessarily be conveyed to the public by the general statement that cancer can be cured by the X-rays. The wisdom of publishing matters of this kind in lay newspapers is more than questionable. In order that the practice of a semi-quack administrators of X-ray cures may not be swelled by the credulity of sufferers of cancer, it becomes a duty of medical journals to sound a clear note of warning.

After-Care of Cases Which Have Been Operated Upon for Perforation of the Stomach.

Gilford (British Medical Journal, Nov. 16, 1901,) suggests that water may be given 4 hours after operation. After 24 hours grape sugar in the form of raisin tea or a decoction of malt may be administered in small doses, Milk contains proteids which undergo digestion in the stomach and should be avoided; beef tea and the various beef extracts stimulate the secretion of gastric juice and are not to be employed. After from one to three days cream and water (1 part of the former to 12 parts of the latter) may be added to the grape sugar. At the end of a week solid food may be commenced, but for 2 weeks longer it is better to select food which is digested mainly in the intestine. The patient should lie on the right side with the shoulders slightly raised in order to facilitate the egress of fluids from the stomach; if the ulcer be low down on the anterior wall of the stomach, the supine position is the best attitude. The bowels should be moved by the use of

enemata if possible; calomel and salts being withheld unless ileus is threatened and rectal injections have proven uneffectual.

Albuminoid Expectoration.

At the December meeting of the College of Physicians Dr. David Riesman (Medical News, December 14, 1901) discussed this subject and reported a case. The patient was a woman, forty-eight years of age, who had a chronic pleurisy of one year's duration. After taping the chest, with removal of three pints of fluid, the woman expectorated during six hours about one gill of a frothy yellowish, slightly blood-tinged fluid. A second tapping was done some time later, but there was no true albuminoid expectoration, The fluid expectorated in these cases tallies closely with the fluid drawn from the chest. In these cases the expectoration begins from a few minutes to half an hour, or rarely two hours, after the tapping. In some instances a pint or a quart is expectorated. Acute cases are most liable to this complication. The following four explanations of its occurence which have been advanced were analyzed: 1. Perforation of the pleura by the tapping instrument; 2. Spontaneous perforation; 3. absorption of fluid by the lungs; 4. Pulmonary edema. The latter is believed to be the true explanation and the following conclusions were drawn: (*a*) Albuminoid expectoration is rare; (*b*) it is due to the too rapid withdrawal of fluid or the removal of too large amount; (*c*) it is caused by an intense congestion of the lungs.

Association of Anemia with Chronic Enlargement of the Spleen.

Arthur H. Wentworth (Boston Medical and Surgical Journal, Oct. 10, 1901) reaches the following conclusions in his study of this disease in children: 1. The blood changes are those of a secondary anemia, the degree varying in different cases. 2. The degree of cachexia does not always correspond to the blood changes which are often moderate rather than severe. It is not improbable that the cachexia and other symptoms are produced by a chronic intoxication similar to that produced by cancer, tuberculosis, etc., and that the splenic and blood changes are merely two of the results which are thus produced; the source of the intoxication is unknown. 3. It is not easy to see how fibrous changes in the spleen can produce toxins. Fibrous tissue in itself cannot be considered capable of producing toxic or other substances. It can produce mechanical disturbances by interference with the circulation, or from the increase of size which may produce in an organ, or by interference with the functions of an organ through injury to the cells. We know that the splenic functions are not essential to the life, or apparently to the health of an individual, therefore an interference with its functions could not produce the symptoms described as characteristic of anemia splenica. 4. If it were possible for fibrous tissue to produce toxic substances, it is difficult to account for the absence of such substances in connection with chronic hyperplasia of the spleen when associated with a variety of well-known causes. 5. The statement that the splenic alterations are primary, preceding all of the other symptoms, requires further observation to confirm it. 6. The lesions found in the spleen do not warrant the statement that this condition is related in any way to pseudoleukena. There is no analogy between the hard, glanular form of malignant lymphoma and the lesions of chronic hyperplasia of the spleen. 6. A tendency to generalize from observations made on one or two cases is to be deplored. In the case of splenic anemia nothing characteristic of a primary disease has been discovered in any organ or in the blood. 8. The evidence is conclusive that anemia infantum pseudoleukemica is a secondary anemia, and that it owes its peculiar symptoms and blood changes to the occurrence of severe anemia at an early age. 9. There is little doubt that anemia infantum pseudoleukemica and anemia splenica infettiva are identical conditions, and there is even less proof that anemia splenica infettiva is a primary disease of the spleen than that anemia infantum pseudoleukemica is a primary disease of the blood. 10. There is no apparent connection between the character of the blood and the splenic changes in infancy. Cases with identical lesions in the spleen—namely, the chronic hyperplasia—show varying degrees of anemia. At times there are marked changes in the blood, and at others the changes are very slight. The degree of leucocytosis varies in the same way. In some cases it is considerable, and in other cases the number of leucocytes is normal or even diminished. 11. These differences cannot be explained by the duration of the condition in many of the cases. All that one is justified in concluding about these secondary anemias of infancy is that in some cases there occurs a chronic hyperplasia of the spleen, and in others the spleen is not altered. 12. The names anemia splenica, primary splenomegaly, anemia splencia infettiva, and anemia infantum pseudoleukemia are objectionable because they are mis-

leading. Anemia splenica has been used for many years as one of the synonyms of pseudoleukemia, and should not be used to describe conditions that are in no way related to pseudoleukemia. No evidence has been furnished that justifies the use of the word "primary" in connection with splenomegaly. The same may be said of the word "infettiva" (infectious) in connection with the infantile form of splenic anemia. Anemia infantum pseudoleukemica is secondary anemia of infancy and in no way related to pseudoleukemia.

Albumin in the Urine.

Osler (New York Medical Journal Nov. 23, 1091), states that a minute quantity of albumin in the urine with a few casts is not necessarily a matter of serious import. They are danger signals which may be of use in guiding the patient to better methods of living and, therefore, their occurrence indirectly serves to prolong his life. The points on which one should lay special stress as indicative of serious disease are: 1. Persistent low specific gravity of the urine, 1008 to 1612. 1. The condition of the heart arteries—marked sclerosis of the peripheral arteries, with the apex-beat of the heart an inch or two outside the nipple line, and a ringing and a highly accentuated aortic second sound, 3. The presence of albuminuric acid retinitis. A trace of albumin and a few tube casts are simply warning to the engineer to go slow, for the pace is too rapid for the state of the track.

Advances in the treatment of Diseases of the Nose.

Lambert Lack (Lancet, November 2, 1901) Suppuration of the antri with no external signs is extremely common, and was first discovered by Zien (himself the victim of a fetid discharge from the nose), who divined the cause, and had his antrum opened and was cured. Being then on the lookout, he soon discovered that the disease was not infrequent; and more recently it has been found that suppuration in the frontal and other sinuses is not at all uncommon.

While antral suppuration is at times due to the teeth, it is more commonly caused by nasal catarrah, especially those associated with infectious fevers and influenza.

An acute catarrah of a sinus is commonly associated with nasal catarrh, and then if the outlet of the sinus becomes blocked, acute suppuration will result.

The majority of these acute cases get well spontaneously, but sometimes chronic suppuration results.

This may be due to several causes. The intensity of the original inflammation may irretrievably damage the mucus membrane lining the sinus; there may be an obstruction to the outlet of the sinus from thickening of the mucous membrane or bone, or from polypi, preventing a free escape of discharge, and ultimately the persistence of the suppuratin may induce changes in the lining membrane or bony walls of the sinus. It is important that these should be recognized and treated, because if suppuration persists, secondary change will occur.

The chief object of treatment is to reduce the swelling around the opening of the cavity and to allow free escape into the nose. The nose should be washed out with some alkaline solution, around the openings of the cavities suprarenal extract and cocaine should be applied on pledget of cotton, and allowed to remain twenty to thirty minutes.

Subsequently use five per cent. to ten per cent. menthol in almond oil or alkaline, to keep the passage clear. It may be necessary to puncture the antrum through the inferior meatus, or open through the socket of a carious tooth. Irrigation should then be resorted to daily.

Chronic suppuration requires surgical procedure. The treatment of polypi, and the destruction of the underlying bone in cases due to diseased bone, although advocated years ago, is only now becoming universally appreciated.

Trigeminal neuralgia, hay-fever, paroxysmal rhinorrhea and asthma frequently depend upon diseases or abnormalities of the nasal cavities, and the more modern thorough treatment of these is followed by gratifying results; and lastly, adenoids in children are now more generallly diagnosed and surgically removed.

A Case of Pernicious Malarial Fever.

Dr. L. T. LeWald reported a case of this fever at the New York Pathological Society, Nov. 13, 1901. The patient was a man twenty-three years of age, who had entered Bellevue Hospital on October 10, with a history of having been ill for about two weeks with prostration and moderate diarrhœa. On admission, the temperature had been 98.4 deg. F., the pulse 100, and the respirations 27, but the temperature had very soon risen to 104 deg. The physical examination showed slight enlargement of the liver and distinct enlargemant of the spleen. The diagnosis at first had been typhoid fever, but the Widal reaction was negative. The blood had been examined by one of the hospital internes, but the plasmodia had not been detected. Five

days later, the blood had been examined at the laboratory and numerous æstivo-autumnal parasites found, about 5 per cent. or the red cells contained the parasites. There were no crescents. The patient had then been put upon large doses of quinine. but had died suddenly within twenty-four hours. The autopsy had revealed extreme congestion of the brain and what appeared to be punctate hemorrhages in the pons and cerebellum. Microscopical examination of these portions of the brain had, however, failed to show any extravasations—only extreme congestion. There was parenchymatous degeneration of the heart muscle and of the liver, and the latter also showed some pigmentation. The kidneys showed a rather acute parenchymatous degeneration, together with a chronic diffuse nephritis. Microscopical examination showed a large number of malarial parasites in the capillaries of the kidney. The spleen was about three and a half times the normal size, and was exceedingly soft and deeply pigmented. The pancreas was congested and somewhat enlarged. The stomach presented a small ulcer on the posterior wall. The intestine showed marked congestion of its mucous membrane. The pia matter of the spinal cord was congested. The retroperitoneal glands were greatly enlarged and softened.

A Case of Spurious Generalized Vaccinia.

J. H. Huddleston (Med. News, Sept. 7, 1901) reports the case of a boy, H. J., 11 months old, who was vaccinated with Health Department virus and the vaccination ran a normal successful course. On the third day a few "spots" appeared on the skin; on the fifth day Dr. Fielder saw the case and noted an eruption on the face, neck, arms, legs and trunk, especially across the lumbar region; it consisted of small, discrete vesicle on a base of papular or erythematous character. The vesicles were 1-16 to ⅛ inch in diameter, high and full. There was no eruption in the mouth. On the sixth day the case was seen by several physicians in consultation and by them it was called vaccinia; it was also seen by some diagnosticians of the Board of Health and by them was called varicella. Some of the lymph was collected on that day. On the eighth day many of the vesicles were pustules. No umbilication was seen. The lesions kept on appearing a few at a time until the twenty-second day. There were three other children in the family, none of whom had had varicella, and none developed it either before or after the operation. Four children were inoculated with the lymph taken from the vesicles and neither a vaccine pustule nor varicella followed. The eruption was, I think, a vesicular eruption, which, exactly like a roseola or an urticaria, sometimes follows vaccination just as all three sometimes follow antitoxin or drug administration. An added reason for this conclusion is that the eruptions of the roseola type may come on in the first three days, vaccinia usually not. The resemblance may be extremely close and the final test in any case is inoculation.

A General Consideration of Pulmonary Tuberculosis, with Plea for its treatment at Special Fitted Institutions.*

That pulmonary tuberculosis is no longer incurable is conceded by the most thoughtful investigators; but it is also conceded that the best and most effective work looking to its control is in the direction of prophylaxis. An early diagnosis is of the greatest importance since, after the disease has reached a certain stage, it is of little consequence whether a diagnosis is ever made, so far as ultimate results are concerned. Many cases of so-called "colds" if given early and intelligent consideration might never have developed into well marked cases of pulmonary tuberculosis the condition in which, unfortunately, the physicians ofter finds them upon his first examination.

The question of the treatment of this disease is next to propholaxis, mainly one of nutrition, a building up of the depressed and debilitated tissues and bringing the vital forces back to their normal standard.

The term nutritition is used in its broadest signification, comprising all the activities, taken collectively, that are concerned in supplying the cells of the various tissues with food, in bringing about certain changes in that food and building it up into cell-substances, in liberating from proper energy, and in getting rid of the waste products resulting from these processes, all of which requires abundant fresh air and sunshine, graduated exercise. perfect hygiene an nutritious food.

Attention is called to the infrequency of pulmonary tuberculosis in those who habitually spend most of their time out-of-doors, and to its frequency among those of sedentary habits—those who spend their time in crowded and poorly ventilated houses breathing polluted and vitiated air and getting little or no sunshine. In treating a disease it is certainly rational to place the patient in that environment in which it is found the disease is least likely to develop.

*Robert M. Ross, M.D., St. Louis—Authors Abstract.

Hence the "out-door-treatment" is earnestly advocated for pulmonary tuberculosis.

All the famous consumption resorts have many sad failures to record because numerous cases are hopeless upon arrival and because the majority are placed under no restriction or regulations whatever. In many cases the gnawing heartache and depression of nostalgia is added to the ravages of the pulmonary disease. Owing to a lack of sanitary regulations, some of the resorts are becoming thoroughly infected with the tubercle bacillus. Climatic treatment is doubtless effectual in numerous cases, but there are thousands so situated that they cannot, if they would, avail themselves of it. For these properly constructed hospitals and sanitaria should be erected in suitable places, securing air as pure as it can be had, and all the sunshine possible. Herein the patient may have, in addition, the benifits of scientific regulation of diet, habits and sanitation, and the pleasures of home comforts and the society of friends.

Positive results achieved within recent years through the application of the rational methods indicated, in institutions of this kind, should be brought to the attention of state and municipal authorities, to the end that such places may be provided for the indigent classes. To aid in a general dissemination of knowledge concerning this malady and the most effectual methods for limiting its spread, each state should have an anti-tuberculosis society affiliated with a national organization.

Alkaptonuria.

Garrod, (The Lancet, Nov. 30, 1901). The facts brought forward lend support to the view that alkaptonuria is what may be described as a "freak" of metabolism, a chemic abnormality more or less analogous to structural malformations. They can hardly be reconciled with the theory that it results from a special form of infection of the alimentary tract. There is here no question of the intensification of family tendencies by intermarriages, for in no instance were the parents themselves alkaptonuric, and, as has been already mentioned, there is, up to now no recorded instance of alkaptonuria in two generotions of a family. It is said that the available evidence points to tyrosin, formed as a product of pancreatic digestion, as the parent substances of the homogentisic acid which imparts to alkapton urine its peculiar properties, and we should expect that the peculiarity of metabolism would first manifest itself after the entry of proteid food into the alimentary canal. The occurrence of the condition in two new-born infants appear to be most readily explained on the assumption that the development of alkaptonuria resulted from feeding, and as the staining of the napkins was noticed the day after their births, the condition may fairly be described as congenital. The resultsof certain experiments are cited that do not bear out Mittelbach's observation that the reducing power of the urine reaches its maximum within two or three hours after a proteid meal, but show, on the other hand, that although such a meal is quickly followed by a much increased exertion of homogentisic acid, a still larger amont is excreted during the second period of four hours, that during the four hours immediately following the meal. In a word, they tend to support the view that the changes from tyrosin to homogentisic acid takes place in the tissues after the absorption of the former, rather than the alternative view that the change in question is brought about in the alimentary tract.

Borderland Between Medicine and Surgery.

Woolsey,(Medical Record, Dec.7,1901). In carcinoma of the stomach surgery offers the only cure, yet the diagnosis usually falls to the physician, and operation is out of the question according to many by the time a tumor is felt. Characteristic symptoms develop late, yet early diagnosis is all-important, therefore in suspicious cases exploratory incision should be made. Kochea's operation is suitable for growths at the pyloric end. Extensive adhesions often contraindicate radical operation, and then a palliative gastroenterostomy may be done in order to overcome obstruction. Obstruction of the candia demands gastrostmony at an early date. In perforating ulcer, an operation alone is indicated, the earlier the diagnosis the better. Other indications for operation in gastric ulcer are repeated or excessive hemorrhage and intractable pain. In cicatricial contraction of the pylorus or hypertrophic stenosis following chronic dyspepsia surgery has achieved the greatest success. Castroenterostomy or pyloroylasty offer complete relief from chronic invalidism. Dilation. gastroptosis, adhesions and hour-glass stomach are best treated by operation. Early diagnosis is imperative in acute intestinal obstruction. Suspicion justifies exploration. In less acute cases while immediate exploration is not imperative, yet it may discover an obstructing carcinoma, and the earlier the operation the better the prognosis. In appendicitis the surgeon should be called in at once. Postoperative ventral hernia should never occur when early operation makes drainage unnecessary.

Beri-beri and the Heart.

Arthur Stanley (Journal of Tropical Medicine, November 1st) closes a paper with the following conclusions:

(1) Beri-beri has a marked degenerative action on the heart muscle, which frequently causes fatal circulatory failure. (2.) In this respect beri beri resembles other toxæmic diseases, such as diphtheria, influenza, and alcohol and arsenic poisoning, which often cause peripheral neuritis, and also other toxæmic diseases, such as typhoid fever, plague, and acute rheumatism, which do not, or rarely, give rise to peripheral neuritis. (3). Beri beri and diphtheria are the diseases *par excellence* in which sudden fatal heart-faiure occur. (4). The heart muscle degeneration is not a secondary result of neuritis of the vagus. (5). The heart muscle degeneration takes place, as a rule, before skeletal muscle degeneration, and is the result probably of direct action of the toxine, and not a secondary result of nerve change. (6). Sudden heart-failure does not indicate a sudden lesion, but rather is the result of a gradually increasing heart weakness from cardiac muscle degeneration, which may be precipitated by any sudden exertion, but more frequently is the result of the principle of "all or nothing"—the transition of from "all" to nothing being necessarily rapid. (7). The cardiac physical signs in beri-beri closely resemble those found in diphtheria, and are of paramount importance in prognosis and treatment.

Cinchonism, Tinnitus and Articulation.

Carl Seller (New York Medical Record, October 26th, 1901) mentions his observations on this subject. His conclusions are the result of a large number of investigations extending over more than ten years. Much difficulty was naturally experienced in getting definite data as regards the loudness and pitch of subjective noises. Valuable help, however, was obtained occasionally from musically-trained patients, complete sets of tuning-forks and rods, etc. Seiler found: (1) That ordinary tinnitus aurium never transgressed the limits of pitch from D—1 (297) vibrations as the lowest point, to F—2 (704 vibrations) as the highest. It had no appreciable effect upon articulation or vocalization, but invariably and materially affected the perception of those sounds which had nearly the same number of vibrations per second. (2) That subjective noises of so-called cinchonism arising from the administration of such drugs as quinine, sodium salicylate, alcohol, ether, and many others were invariably of a very high pitch, varying from G—3 (1,584 vibrations) to as high as I—4 (3,960 vibrations) and even higher. (3) In the case of musically educated persons it was found that the noise was composite in character, being of a variable number of individual sounds. These were sometimes harmoniously blended, thus forming a chord, the fundamental tone of which varied in pitch with the drug used. It was usually lowest if quinine was the cause and highest where sodium salicylate was being exhibited. This Seiler had frequently verified in his own person. (4) Any composite noise of high pitch, such as the hissing of steam or the sound of a rapidly revolving grindstone, interferred both with pronunciation of certain consonants and with their proper appreciation by the ear. Such consonants were those which had for their characteristic (as pointed out by Helmholtz and others) a combination of sounds of very high pitch, such as "th," "z." This fact was recognized by workers among machinery when their attention was called to it. It could be easily explained by the well-known accoustic law of interference with each other of sound waves of nearly equal length; and that the higher the pitch of two non-harmonious sounds, the greater the difference can be in the number of vibrations allowing interference. But acoustic laws completely failed to explain how subjective, and in reality physically non-existing noises, such of those of cinchonism undoubtedly interfered with the *pronunciation* of those consonants already referred to, and even with the quality of high-pitched vowel sounds.

Cystitis.

Brow (John Hopkins Hospital Reports) points out that with hyperacidity of the urine all the symptoms of cystitis may be simulated, even to the appearance of pus, blood, and mucus, but that in these cases the urine is, of course, sterile. In cases where there is doubt as to whether the kidney or the bladder is the seat of the infection, attention should be paid to the specific gravity, the percentage of urea, and the nature of the blood cells. A low specific gravity, large amount of albumen, diminished urea, crenated red corpuscles all point to kidney infection. Suprapubic puncture of the bladder may be done with impunity, and the most reliable specimens are obtained in this way. Of the twenty-six acute cases investigated the incubation period varied from three to twenty days. The following organisms were found:—B. coli, fifteen times; staphyloccus pyogenes albus, five; staphyloccus pyogenes aureus, twice; B. pyocyaneus, once; B. typhosus, once; Proteus vulgarus, once. The urine

was acid except when cocci and Proteus were present, and hyperacid with B. coli and typhosus. In the thirty-one chronic cases the same organisms were found, the B. coli being present in sixteen, in one of which it was associated wiih the tubercule bacillus. This was the only double infection. In only six of the thirty-one cases was the urine alkaline. Of the six tubercular cases all apparently started in the bladder, and except in the instance recorded above the infection was a pure one. The tubercular cystitis was characterised by the presence of large quantities of blood. Some interesting cases of pyelitis and of pyelonephritis are also recorded. Of the two acute cases, in one the urine was acid and the exciting organism the B. coli. In the other the organism present was the Proteus vulgaris and the urine was alkaline. Half of the twelve chronic cases were caused by the B. coli, and the remainder by Proteus vulgarus and staphylococci. Eight were associated with cystitis. Six cases of pyelonephritis were tubercular, and of these four had been infected from the bladder. Young, in discussing the paper, stated that the B. coli was less frequently the exciting cause of cystitis in males than in females.

Chest Complications in Abdominal Diseases.

Bruce, (British Med. Jour. Nov. 23, 1901) says that most frequently we meet with them as affections of the stomach, bowels, liver, or other of the intraperitoneal viscera, or of the peritneum itself, complicated with a secondary invasion of the chest: in other instances, we are first introduced to a disease of the lungs, pleura, or pericardium, which proves to be secondary to an unrecognized lesion below the diaphragm. In the course of the investigationg of an obsure case of abdominal disease, when we are in difficulty over the diagnosis and hesitating in our treatment, symptoms and signs make their appearance that point to invasion of the chest. These at first add to the complexity of the case, but if they are attentively considred, they prove to be useful guides to the discovery of its nature and to the correct treatment, when treatment is possible. Illustrative cases of subdiaphragmatic abcess, tuberculous peritonitis, appendicitis, and certain affections of the chest secondary to liver disease are cited. On the other hand, in the course of the investigation of a case of disease of the chest we sometimes discover evidence of disease within the abdomen, of which certain illustrative cases are cited—cases of hepatic disease, pleurisy and perigastric abcess, pleurisy and perinephritic pleuriy and peritonitis (tuberculous), and hydatid of the liver. It is suggested that as infective material passes from the abdomen to the pleura, the tubercle bacillus may thus reach the pleura and that looked at in this light many of the cases of tuburculous pleuritis may be really the result of infection through the abdomen.

Clinical Facts and their Meaning.

Aikin (Medical News, December 14, 1901). The symptoms leading up to paralysis, neuritis, nervous prostration, neuralgia, are quite as frequent and positive of some existing disorder as the prodromas in continued fevers, etc., but do not arrest careful attention. A large percentage of illness are due to faulty digestion or assimilation. Destructive instead of constructive metabolism ensues, and the results are either temporary or permanent nervous disorder. Pain is not prominent in intestinal indigestion, therefore the latter is often overlooked in the search for some organic lesion tó account for the neuroses. Failure of satisfactory results in treating illy-defined nervous complaints lies in neglect of rational means of overcoming impoverished blood and vitality. Rest, nutrition and elimination are needed instead of powerful stimulation and continued overwork of the nutrient vessels. The nervous system is slower to recover than any other structure because nerves are less fully supplied with blood-vessels.

The Diagnosis of Cirrhosis of the Liver.

Dr. James C. Wilson, of Philadelphia, at a recent meeting of the New York Academy of Medicine, read a paper on this subject. He said that it was unfortunate that the name cirrhosis had come into use; for, while it had been applied originally because it signified a yellow or tawny color, and this was more or less descriptive of certain forms of this hepatic affection, it gave no direct and accurate conception of the pathological condition. It was now asserted that atrophic and hypertrophic cirrhoses of the liver are not, as formerly supposed, merely different varieties of the same disease, but totally different diseases. Again, the term atrophic cirrhosis was likewise misleading; for statistics had shown that the hob-nail liver, to which it had been originally applied, was not necessarily smaller than the normal, and might even be larger. No definition could be framed which would include, both pathologically and clinically, all forms of so-called cirrhosis of the liver. The one underlying pathological process common to all the varie-

ties is an overgrowth of the connective tissue of the liver. Chronic interstitial hepatitis was a sufficiently comprehensive term, and should be more generally used. Certain infections, toxæmias, and mechanical irritation give rise to interstitial hepatitis. Not all forms of chronic interstitial hapatitis could be recognized. A high degree of atrophy may occur, provided the collateral circulation has been established without other symptoms directing attention to the liver. Adhesive pyelo-phlebitis closely resembles the atrophic form of interstitial hepatitis. The rapidity with which the peritoneal effusion re-forms after tapping is an important diagnostic sign. The hypertrophic form of interstitial hepatitis often presents insuperable difficulties of diagnosis in the early stage. The recurrence or persistence of jaundice, its intensity, and the presence of bile in the stools, were of diagnostic importance. After the disease had become established, the uniform enlargement of the liver, the splenic tumor, the occasional attacks of jaundice, and the fever were diagnostic. Chills and sweating are not common, thus serving to differentiate it from impacted gallstones. In terminal conditions, the diagnosis is a comparatively simple matter.

Diagnosis of Suppurative Pericarditis in Children.

Batten, (British Medical Journal) says no less than 3 per cent. of the deaths in the Children's Hospital are due to this affection, which is one of the most diffiult to recognize during life. Even with diagnosis made, the physician is often impotent to interfere.

Of 6 personal cases of this affection in children, from ten months to three years of age, all had existed for some weeks before admission to the hospital.

In every instance the pericarditis appeared to be secondary to some other affection (measles, pneumonia, bronchitis).

The patients often have an apparently healthy look (as far as nutrition goes), which, however, is belied by the very rapid pulse, flabbiness and wasting of the muscles, pallor, etc.

One symptom frequently encountered is the tendency to syncopal attacks, characterized in the infant by lividity of the lips, tachypnea and general moribund appearance.

Physical exploration does not supply the practitioner with much definite information. As a rule the area of percussion dulness was not increased, and murmurs were absent.

The amount of pus found in the pericardium varied from a few drachms to six ounces. The heart muscle and endocardium were natural. Empyema coexisted in 4 of the 6 cases.

Differential diagnosis in these cases must take into consideration the possibility of empyema and tuberculosis. The only symptoms at all suggestive of suppurative pericarditis are very rapid pulse and the syncopal attacks.

The only rational plan of treatment, viz.: evacuation of the pus and drainage, is considered are at present out of the question.

Empyema and Ascites

At a meeting of the Liverpool Medical Institution Nov. 21, 1901, Dr. Rendle (Medical Press and Circular) read notes of a case of empyema and asctie associated with cirrnosis of the liver. The patient, a man, æt. 33, with a history of being a heavy drinker, was seen in January 1900, complaining of aucte pain over the liver, which was tender and was felt two inches below the costal margin. There was jaundice, and the urine was loaded with lithates. Treated with salicylate of soda the symptoms subsided in a week. Six weeks later he had a second attack, and soon afterwads developed a lobar pleuro pneumonia, temperature reaching 105, accompanied by active delirium and defervescence by lysis, temperature being normal on the twelfth day. Ten days later there was well marked right-sided empyema, treated by resection of rib and evacuation of pus. Five days later fluid was collecting in the peritoneum, and subsequently the patient was tapped three times at intervals of one and two weeks, the amount of fluid at each tapping being from two and a half to three gallons. The nature of the obstruction in the liver was probably twofold, alcoholic and syphilitic. The recovery was uninterrupted after the last tapping, and the patient has been at his work for the last twelve months.

Diet in Eczema.

N. S. Davis, Jr., (Dietotherapy, Cohen's System, Vol, 6), says it is most easily excited and most likely to be prolonged and severe when metabolism is disturbed. Eating and foods therefore play a part in causing and in prolonging it. It occurs frequently as a complication of diabetes, of a gouty or strumous tendency, and of Bright's disease. Dietetic treatment appropriate to these disorders is an important aid in the management of eczema. Whatever the condition of the patient may be as regards flesh, the diet should be so adjusted as to prevent digestive disorders, and to avoid overwork-

ing the liver or surcharging the blood with effete matter. Food should, as a rule, be taken in moderate quantities. When eczema occurs, as it often does, in those who are stout, the diet should be simplified and flesh reduced. A milk diet for a few days, with purgation, will help to make the gastro-intestinal canal cleaner, will stimulate diuresis, and thus wash from the blood unwholesome ingredients. Even when two quarts are consumed in 24 hours, less nourishment will be taken than is habitual. Such a diet maintained for a few days and subsequently gradually modified, will lead to a diminution of flesh and to healthy metabolism. Fruits, the simple vegetables, breads, fish and eggs, may be used after the first few days, and the quantity of milk lessened. Red meats should be forbidden for a time and later used sparingly. Stout infants who suffer from eczema are sometimes benefitted by simplifying the diet of nurse. In bottle-fed babies too much farinaceous food and too much sugar are often harmful. The diet of the mother must be studied and prescribed carefully if she suckles the babe, and if she feeds it from a bottle, care must be taken to adapt the food to the child's power to digest and assimilate.

Too little food, because of poverty, and lack of cleanliness are also causes of eczema. Many patients of this class are strumous as well. Sufficient food, well cooked, quickly causes stubborn exzema to disappear in such cases, in which cream, butter, olive oil and codliver oil may also be given with great advantage. Every attempt should be made to improve nutrition.

In other cases it is necessary to forbid rich foods, fried food, especially sweet food and all other kinds tending to produce indigestion. The vegetables that are least digestible, such as cabbage, turnip, sweet potato and egg plant, must be forbidden; occasionally, also, oatmeal, bananas, peaches, pears and strawberries, and usually pork, "high" game, salt and smoked meats. In certain cases dyspepsias must be cured and diet that overloads the urine with phosphates, urates and oxalates must be corrected.

The Etiology of Pericarditis.

Preble (Journal of the American Medical Association, Dec. 9, 1901) reviews the literature of this subject and reaches the following conclusions which we quote in substance: 1. Cases of acute pericarditis clinically primary occur, but are rare; 2, diseases to which pericarditis appears as a complication are in order of their frequency; pneumonia, 34%; rheumatism, 28 36%; chronic diffuse nephritis, 11.2%; tuberculosis, 10%; sepsis, 4.7%; aneuryism, 2.6%; typhoid, 1.7%; 3, the more extensive a pneumonia, the greater the danger of this complication; 4, the danger is somewhat greater with left than with right-sided pneumonia; 5, where only one lobe is involved the danger is least with a right upper-lobed pneumonia and greatest with a right middle or left upper-lobed pneumonia; 6, with an unilobar pneumonia the chances of a pericarditis are 1 in 40; with a bilobar or trilobar, 1 in 19; with quadrilobar, 1 in 5, and with a pneumonia of the entire left lung, 1 in 8; 7, the mortality of pneumonia with pericarditis is 92.4%; 8, rheumatic pericarditis is complicated by endocarditis in 60% of the cases, i. e., three to four times the normal rate of endocarditis; 9, the danger of pericarditis complicating rheumatism is the greater the younger the individual, and is somewhat greater with males than with females; 10. so far as acute pericarditis is concerned, the site and extent of endocarditis are apparent of no importance; 11, pericarditis appears as a complication of all forms of nephritis, but particularly the chronic diffuse with contraction; 12, it is an extremely ominous thing, for 22, i. e., 84.6% of the cases died; 13, it is still uncertain whether the pericarditis is toxic or infectious; 14, tuberculosis excites only one-tenth of the cases, and when one considers the extreme frequency of tuberculosis, pericarditis must be regarded as a rare complication; 15, pericarditis may be a part of a generalized acute tuberculosis, but is more often the result of a chronic tuberculosis of the lungs or mediastinal glands; 16, septicemia and pyemia contributs a very considerable number of cases of pericaditis. The primary focus may be remote or close to the pericardium; 17, aneurysm of the aorta causes 2.6% of all the cases, a very high figure when one recalls the comparative infrequency of aneurysm; 18, typhoid fever, which is rarely complicated by inflammation of the serous membranes, other than the peretoneum contributed 4 cases which is 1.7%; 19, the cases of oblilteration of the pericardium are due to the following causes arranged in order of importance. Endocarditis, tuberculosis, chronic nephritis, aneurysm; 20, more than one-half of the cases in which the cause was clear, were due to endocarditis, or rather to some cause common to both the endocarditis and the pericarditis, and more than one-half of these cases showed a combined aortic and mitral endocarditis; 21, relatively six times as many cases of obliteration of the pericardium occur with aortic and mitral endocarditis than with either lesion singly; 22, tuberculosis causes but few cases of ob-

literative pericarditis; 23, pericarditis, accompanying nephritis, is not always fatal, but may apparently end in the formation of adhesions.

Chinese Doctors.

A leading Chinese newspaper according to the Medical News has put forth a lament for the degeneracy of native physicians. Time was when the great men of China would take the prescription only of a man who represented the third generation, at least, of a family of physicians, and hence, death rarely overtook the patient until old age had well paved the way. But how the present race of doctors have deterioriated! Many of them trade on the ignorance and superstition of their patients, forgetting that though they may decieve men they cannot hope to escape the eye of the gods. China has just awakened to the fact that in the enlightened West a man cannot practise the healing art until he has passed several stringent examinations and has been declared so qualified by the Government. As in China all promotions, both in civil and official life, are made by examination, a petition has been presented to the Government to take the preparation for practice of the art of medicine under its fostering care. The drugs and methods of European schools are looked upon with distrust and suspicion by the Chinese; but a few of the more intelligent and progressive among them are "getting into line," and a better and more rational state of affairs in the Chinese Medical world is hoped for.

Chronic Inflammation of the Tear Passages.

Dr. W. O. Nance (Journal of the American Medical Association) says that in operating upon the canaliculi for the purpose of opening the tear passages to the nose, two points should be borne in mind; 1 The incision should be made entirely on the conjunctival surface of the lid by inclining the cutting edge of the knife slightly toward the eyeball. 2. Slit up as little of the canal as is possible to allow of the passage of the probe. One-third of the length of the canaliculus is generally sufficient. By observing these simple rules the normal capillary or suction function of the canal so necessary to retain, will be maintained.

One of the smallest probes should be immediately passed and repassed daily for two or three days, to prevent healing of the wound. The introduction of probes larger than a No. 8 Bowman at any time when there exists no true stricture of the duct seems to be not only wholly unnecessary, but extremely liable to injure the membranous walls of the passages. produce further thickening and cicatricial formation, and destroy the delicate valve-like folds of the nasal duct, even when exceptional care has been displayed in their use. The probe should also be carried into the nasal fossa, as a frequent location of the stricture is at or near the exit of the duct in the inferior meatus.

Probes should be left in position for twenty minutes, withdrawn and the passages flushed with some antiseptic or astringent solution. Dr. Nance is opposed to hauing the patient or some member of his family pass the probes, as the manipulation when properly done, is an exceedingly delicate one and shuold not be entrusted to the inexperienced without expectation of damage.

Refractive errors should be carefully corrected and constitutional disturbances remedied. Exercise in the open air and cold baths are indicated in the majority of of cases. Sac extirpation is justifiable as a last resort in intractable cases.

Congenital Heart Disease.

J. Morse (Archives of Pediatrics, Oct. 1901) writes as follows:

The points brought out by the study of thirty-two cases of congenital heart disease which seem to me of most interest are:

1. The considerable proportion of cases in which the cardiac lesion was discovered during a routine physical examination, there having been no symptomsreferable to the heart.

2. The length of time which the condition may exist without the development of any symptoms, several cases having shown no symptoms at three and four year of age.

3. The comparitive mildness of the symptoms in cases of patent foramen ovale.

4. The recovery from lesions which from physical examination were apparently the same as those in cases which resulted in chornic invalidism or death.

Desert Climate for Consumptives.

Dr. R. M. Phelps, of Phoenix, Arizona, who writes upon this topic in the Northwestern Lancet for November, says in part:

"To discuss climate clearly, one's 'ideal' should be known. Briefly stated. my ideal of climate, as developed by practical experience, study and observation, would include the following conditions: (1) A day temperature rising to a maximum of 75 to 85 degrees, (2) a night temperature going to a minimum of about 60 degrees, (3) no rains at all, (4) a thoroughly dry air, having not over 30 to 40 per cent. of relative humidity at any time, (5) an unirrigated

soil (to aid drying), (6) a sandy soil (to aid in keeping near ground dry), (7) a wind motion of 4 to 6 miles an hour in the day-time, with complete calm at night, (8) no cloudy days. (9) an elevation of from 3,000 to 5,000 feet above the sea level,—all these conditions to exist the year round.

"To these should be added, as accessories, a good, clean, fair-sized city close at hand; an out-door occupation expanding and contracting to fit degrees of physical powers; remuneration enough to make work interesting and stimulating; and the presence of one's immediate family. Manifestly, there is do such place, and no such combination of conditions is possible; yet they are the conditions to work toward as far as possible.

"These, as ideals, form the basis for the recommendations to follow, and are, in a way, premises, supporting them as conclusions. Possibly, some leading opinions may still further avoid the need of arguments. I reguard special climates chiefly as aids in bringing about the egect of air, freely and without harm, on body and in the lungs,—plus a tonic effect, largely secondary, on the appetite and digestion. I regard the injurious effects of other climates as largely inherent in what we call 'chill.' By inducing chillness, the dampness, the wind changes and the temperature changes owe most of their danger. I regard the extreme cold of the north, as chiefly injurious in causing in-door life. I regard bodily exercise and breathing exercise as valuable in aiding air-effects on lungs, and promoting also the other elements in tissue-changes. I regard forced feeding as not so logical as arousing the appetite. Lastly, I have been much impressed with a recent tendency to exaggerate contagiousness and to minimize a predisposition in the constitution (call it heredity or not, as you please). If the bacilli enter almost all of us, they become practically a constant, and the predisposition, temporary or inherent, is the variable."

Coming to the question of choosing a locality the author says:

"I do not write to boom any special city. I have no doubt, however, that the area enclosed by a line from Colorado points to Albuquerque, to Flagstaff, to Prescott, to Phœnix, to Tucson, to El Paso and north to Colorado, is an area which takes in the most favorable locations. Unfortunately, however, it is nearly as evident that no one locality remains the most favorable during the whole year. In summer Phœnix, Tucson, El Paso and other low elevations are too hot for comfort, while in winter, Denver and other high level places are too harsh to allow the fullest out-door life. Concerning these two contrasted sections, it has seemed to me that the least sick can easily remain the whole year at either extreme, while the most sick cannot well stand the most unfavorable season of either section. To get the best, means an annual migration. Denver is a good type of the best summer climate (for three years I have chosen Prescott as being nearer to Phoenix, more economical, and having fully as good climate). For winter Phoenix or Tucson, and possibly El Paso, Las Crusces or other places, seem to possess the most of my ideal conditions. Personally, I chose and still prefer Phoenix, because of the populated area for driving, because of more eastern people and ways, because of less wind and for other like items. Of course none of the cities at all, but some desert valley or station, or a moving outfit for hunting or exploration, may be chosen.

"I would hold to three prominent conditions as demanded by my ideal elements. First, living on desert (unirrigated) ground, whether in city or out. Second, living in a tent. Third, living outside the limits of any city. The majority of incomers do not conform to any of these conditions. Those who do, with hardly any exception, not the benefit from so doing. Even when fully desired, social or financial conditions often prevent the full adoption of these three. For example, a lady alone finds it hard to comply with them. A common compromise is to live on a well-located ranch, on which, as boarders, they sleep and live in tents, getting their meals at the house. This is about the best for ordinary cases. Of the three elements, I would insist on the tenting as most important. It can usually be brought about in some way. But in any compromise, remember the ideals, as standards of comparison with which to measure the deviation in actual practice.

"Tenting deserves special consideration. I have noted the efforts of Osler and others to detail out-door living and sleeping for home treatment north and east, and I have wondered why tenting was not specified in place of porch sleeping and other such plans. Tenting can be adapted to meet in most climatic conditions. Having spent about three years in tents, in the Michigan woods, on the plains of Canaea, and in Arizona, in temperature from 22 deg. below zero to 104 deg. above, I can hardly be said to speak without experience. But, after all possible is admitted, I cannot see how Minnasota one can adjust to the extreme temperatures and harassing changes, and anywhere near approximate the free out-door life of winter in Phoenix or Tucson.

"To the three conditions should be added directions, as to adjusted exercises, or better, rest and exercise, and admonition to guard against the changes from sun to shade, from night to day, from calm to rain. These changes are common to all dry climates, and most serious in the two or three winter months."

The Effects of Direct, Alternating Currents and X-rays on Bacteria.

Zist (Journal of the American Medical Association, Nov. 3, 1901), after performing a great many experiments has arrived at the following conclusions:

1. A continuous current of 260 to 320 milliamperes passed through bouillon cultures kills bacteria of low thermal death points in 10 minutes by the production of heat—98.5 deg C. The antiseptics produced by electrolysis during this time are not sufficient to prevent growth of even non-spore bearing bacteria. The effect is a purley physical one; 2, a continuous current of 48 milliamperes passed through bouillon cultuers for from 2 to 3 hours does not kill even non-resistant forms of bacteria. The temperature produced by such a current does not rise above 37 deg C. and the electrolytic products are antiseptic but not germicidal; 3, A continuous current of 100 milliamperes passed through bouillon cultures for 75 minutes kills all non-resistan forms of bacteria even if the temperature is artificially kept below 37 deg C. The effect is due to the formation of germicidal electrolytic products in the culture. Anthrax spores are killed in 2 hours Subtilis spores were still alive after the current was passed for 3 hours; 4, a continuous curren passed through bouillon cultures of bacteria produces a strongly acid reaction at the positive pole, due to the liberation of chlorin which combines with oxygen to form hypochlorous acid. The strongly alkaline reaction of the bouillon culture at the negative pole is due to the formation of sodium hydroxid and the liberation of hydrogen in gas bubbles. With a current of 100 milliamperes for 2 hours it required 8.82 milligrams of H_2SO_4 to neutralize 1 c.c. of the culture fluid at the negative pole and all the most resistant forms of bacteria were destroyed at the positive pole, including anthrax and subtilis spores. At the negative pole anthrax spoers were killed also, but subtilis spores remained alive for 4 hours; 5, the continuous current alone, by means of the DuBois Reymond's method of non-polarizing electrodes and the exclusion of chemical effections in Kruger's sense, is neither bactericidal nor antiseptic. The apparent antiseptic effect on suspeusion of bacteria is due to electric osmose. The continuous electric current has no bactericidal nor antiseptic properties, but can destroy bacteria only by its physical effects—heat—or chemical effects, the production of bactericidal substance by electrolysis; 6, a magnetic field. either within a helix of wire or between the poles of a powerful electro-magnet, has no antiseptic of bactericidal effects whatever; 7, alternating currents of a three-inch Ruhmkorff coil passed through bouillon cultures for 10 hours favor growth and pigment production; 8, high frequency, high potential currents—Tesla currents—have neither antiseptic nor bactercidal properties when passed around a bacterial suspension within a solenoid. When exposed to brush discharges, ozone is produced and kills the bacteria; 9, bouillon and hydrocele-fluid cultures in test-tubes of non-resistant forms of bacteria could not be killed by Róntgen rays after 48 hours exposure at a distance of 20 mm. from the tube; 10, suspension of bacteria in agar plates and exposed for 4 hours to the rays, according to Rieder's plan, did not kill them; 11, tubercular sputum exposed to the Rótgen rays for 6 hours at distance of 20 mm. from the tube, caused acute miliary tuberculosis of all guinea-pigs inoculated with it; 12, Róntgen rays have no direct bactericidal properties. The clinical results must be explained by other factors, possibly the production of ozone, hypochlorous acid, extesive necrosis of the deeper loyers of the skin and phagocytosis.

The Electric Arc.

Cleaves (Journal of Physical Therapeutics), places great confidence in the electric arc as a therapeutic agent. The result of experimentation and clinical work shows that it is the high-frequency or chemic rays which have the power to destroy the bacteria and cause dilatation of the capillaries with corresponding circulatory changes and increased nutritive activity. In treating lupus or carcinoma, the desired effect must be produced by the maximum of chemic activity, which means a maximum of the very high frequencies. The effect of the electric-arc bath is not confined to the action of high-frequency waves alone; the low-frequency waves, as well as the ozone which is generated, play an important part in nutritive change. From the administration of the electric-arc bath the author has noted the establishment of circulatory change with a uniform regulation of the heart's action, as evidenced by improved volume and slower pulse rate, the augmentation of the temperature, increased

activity of the skin, fuller and slower respiration, with gradually increased respiratory capacity and diminished irritability of the mucous membrane with lessened discharge in those patients suffering from catarrhal conditions of the nasal passages, and in tuberculous, bronchitic, or asthmatic patients. In diseases of the respiratory system a soothing effect upon the mucous membranes is always experienced, while cough and expectoration are diminished.

The Frequency in Distribution of Goitre in the Island of Montreal.

George A. Charlton, (Montreal Medical Journal for August, 1901) gives a study of the distribution of goitre on the island of Montreal. The territory comprised in the investigations is about thirty miles long by ten miles wide. In general, the configuration of the island is a plain, gently sloping in all directions from Mt. Royal, which arises abruptly in the center of the island. The soil varies from a sandy loam at the extremities of the island to a soft clay plentifully strewn with granite boulders at the borders. In certain localities a heavy blue clay forms the lower strata of the soil. The depth of the soil ranges from a few inches to several feet, but it is nowhere of very great depth. There are few natural springs in the island, and consequently few marshes, and those found are due to the accumulation of surface water.

The citizens of the city of Montreal and those people living near the shore use river water chiefly from the Ottawa; this contains a very small percentage of salts and lime. People living inland depend upon wells which are shallow and invariably contain more or less surface contamination. In the city of Montreal it is rare to have a person born and bred there afflicted with goitre, though it is quite a common disease in the surrounding rural districts.

He concludes that there is a relation between the surface and hard waters and the development of goitre. In one of the districts upon the island of Montreal which formerly presented large numbers of goitrous cases, a distinct diminution was noted in the prevalence of the disease after a common water supply derived from the river was introduced. He is of the opinion that the drinking water from the shallow wells is not the only factor in the development of goitre, as in the study of one of the parishes in which the disease is very rare the general configuration of the land is flat and the wells are only from six to ten feet deep. There is, however, a relation between the nature of the soil, the shallowness of the wells, and the prevalence of goitre. When the overlying soil is glacial clay, although the wells are shallow, goitre does not occur; where, on the other hand, the soil is sandy and porus, goitre is very common, although there is considerable variation in the depth of the wells.

Fallacies Concerning the Menopause,

G. E. Shoemaker (Philadelphia Medical Journal) believes that too often disorders occurring at the time of the menopause are neglected as though they were due to the course of nature. First is hemorrhage. These cases are not as a rule investigated soon enough. The total loss of blood in a given series of months is never excessive under normal conditions. If no flow is seen for two, three or five months, and then a single free bleeding occurs, even if the quantity is great at this one time, there is nothing necessarily abnormal. By questioning it will be learned that the total quantity divided by the total number of missed months would not be excessive for each mouth. There is, on the contrary, no justification for considering a flow physiological, when it recurs nearly every day or every week, or every two weeks, for months or years; nor when by comparing a number of months, say six, it is found to be steadily increasing; nor when the total quantity amounts to four or five napkins a day for prolonged periods, and when these periods occur too often in the year. Yet this error is constantly made.

Another fallacy is that with fibroid tumors of the uterus which are growing or causing disturbance, the patient will do well to wait for the menopause. This idea arose when the mortality after fibroid hysterectomy was 50%. Now, when it is 6% or less, in cases without heart and kidney lesions or pus tubes, and when hemorrhage has not brought the patient to the verge of the grave, the question of operative treatment stands on a different basis. The hope that the menopause will cure the case is in itself fallacious. These patients bleed till they are 55 or more years of age, thus waiting 20 years for the menopause if they begin to wait at 35, as some do. Meanwhile they are subject to serious complications which may cause death while waiting for the menopause. Moreover, the hope that the tumor will diminish in size at this period is often fallacious.

Fear as an Element of Nervous Diseases and Its Treatment.

J. Punton (Journal of the American Medical Association, Dec. 7, 1901) believes that morbid fear may sometimes proceed

from within and be of purely psychic origin, in which case the external evidence is greatly modified and subdued, but the internal emotion is attended with marked mental dread or fear, amounting to almost despair. In such cases the attention and imagination enormously augment its intensity and at times torture the patient to such a degree that he loses control of himself and becomes almost mentally alienated during the paroxysms. Moreover, the emotion of fear under certain conditions proves stimulating, so that the frightened subject under its action seems to take on new strength and perform feats that would otherwise have been impossible without the usual stimulus attending it. On the other hand, fear more often entirely overcomes the inhibitory power and renders the will powerless, so that all the vital functions are temporarily checked or held in abeyance. The emotion of fear may, therefore, be stimulating, inhibitory, or paralyzing to the vital functions according as the stimulus is strong or weak, and the reaction active or indifferent. Measures that are directed toward the relief of the physical conditions associated with morbid fear pertain largely to the removal of the cause. If the general health is depressed or found suffering from any toxic condition, such as lithæmia, autoinfection, and similar states, the use of the salicylates, alkalies, and cathartics, with proper diet, is often attended with marked relief. In the practical therapeutic realm of neurology and psychiatry, no symptom at times offers more obstinate resistance to all kinds of treatment than morbid fear; but in the majority of cases, if the principles referred to are intelligently, persistently; and scientifically applied, much can be done toward its permanent alleviation.

Foreign Bodies in the Air Passages.

De Forest Williard (Jour. Am. Med. Ass.) in reference to the treatment of this accident concludes as follows:

1. Coughing should be encouraged; forcible inspiration restrained.

2. Inversion in the prone position as a domestic practice is admissible.

3. Laryngoscopy is helpful if the body is lodged at the vocal cords. It may be extracted by forceps or by laryngotomy.

4. If time permits, the X-ray may be brought into serviceable use for diagnosis.

5. Careful diagnostic investigation is important to determine the actual presence of an impacted body, and its location.

6. Tracheotomy under local anesthesia should be the rule if the object is lodged at the bifurcation or in the bronchi. Tracheoscopy, snction and forceps' manipulation must be cautiously employed. Prolonged instrumentation adds greatly to the danger of pneumonia.

7. If extraction is not secured through the tracheotomy wound the chest wall should not be invaded unless an artificial respiratory apparatus like Fell-O'Dwyer is at hand, and oxygen available. With the assistance of these appliances, however, the bronchus may be reached, anteriorly or posteriorly, since, by their use, rythmical movements can be maintained.

8. Resultant abscess of the lung should be treated by incision and drainage.

The "Flint Murmur" in Aortic Insufficiency.

Dr. W. Sidney Thayer (American Journal of the Medical Sciences, November) states that "One may be justified in saying that in uncomplicated arotic insufficiency a rumbling, echoing, presystolic, or middiastolic murmur limited to the region of the apex of the heart is very common, occurring, when carefully looked for, in fully half of the cases. The characters of this murmur are in no way different from that commonly observed in true mitral stenosis, with the exception of the fact that it is usually of moderate intensity. It is, however, rarely associated with a tapping systolic impulse and a snapping first sound, which are the rule in true mitral obstruction, while the pulse is large and characteristic of uncomplicated aortic insufficiency. In the absence of these signs and with a large pulse, the functional character of an apex presystolic mumur in aortic insufficiency is to be suspected, especially in cases where there is no history of acute infectious processes such as are ordinarily associated with endocarditis, and where there is evidence of well-marked arterio-sclerosis. A Flint murmur may, however, be associated with many of the clinical features, of a true organic mitral obstruction."

High Temperature in Scarlatina and Measles, as Related to Gastro-Intestinal Toxins and Fermentation.

Arthur De Voe (Pediatrics, August 1st, 1901) says that there are many clinical facts tending to support the belief that the exanthematous diseases are, like most occurring in this period of life, intimately related to the mucus and digestive systems of the body. The author has the following observations to offer: 1. Temperatures of 103 deg. to 106 deg. F. in scarlatina and measles decline promptly by one or more degrees from an injection of a pint or more of cool water containing two to ten grains, according to age of patient, of sulpho-

carbolate of soda per rectum. 2. In the same conditions, and even in the same cases, the cold bath has not acted with so much or so happy effect. 3. When the enema has been ejected without accomplishing a movement of the upper bowel, meleioration of temperature has nevertheless been noted. 4. Offensive gases and intestinal dejecta are often in evidence from these enemas and a more notable reduction of temperature then ensues. To secure this effect repeated attempts may be required. 5. Sulpho-carbolate of soda and other suitable intestinal antiseptics prove useful when given by the stomach also. 6. Many of the children having scarlatina and measles with high temperatures are observed to have one or more carious teeth in the mouth, generating toxic influences for the lower digestive tract. It is of interest to note here that these diseases prevail, especially during the irritating periods of teeth formation, growth, decay, and exuviation. 7. The mouth and pharynx, the proximate cavities of the digestive tract, being accessible to observation and treatment, should be frequently cared for by brushing or wiping the teeth and by cooling and non-irritating washes and gargles of antiseptic quality, especially during periods of high fever. 8. Post-scarlatinal nephritis should always be in mind when directing treatment of this disease. Intestinal antiseptsis as it may be promoted, and asepsis as it may be urged by cooling enemas, give aid and comfort to tne kidneys, the daily excretions from which should be carefully and intelligently watched. 9. High post-eruptive temperaturer are often and have been repeatedly traceable to infelicities of indigestion and digestion, and are more effectively relieved by prompt and sufficient enemas than any other treatment. 10. These high post-eruptive temperatures repeatedly rising in the same individual have been accompanied synchronously by sensible increase of submaxlary swelling and tenderness, followed by the quick abatement of these lymphatic swellings along with the reduction of temperature from cooling antiseptic enemas. This reaction, many times repeated with the same sequence and relation, would indicate that intestinal toxins have been absorbed with the chyle and distributed to the tissues at large, creating fever and temperature, and have been thence resorbed by the lymphatics, creating swelling, pain and tenderness at various irritable centers, as in the glands of the neck, etc.; and when the irritation persists and the toxins are allowed to accumulate to repletion, suppuration results. Enemas to be most effective should be made to reach and relieve the upper bowel. The existence of diarrhea is not a contraindication. Frequent flushing of the bowels in the management of typhoid fever, Asiatic cholera, and other gastro-intestinal diseases had eminent professional endorsement. And the author holds that pneumonia, meningitis, and other diseases developing high temperatures, and in which antitoxins accumulate and are active, sometimes promoting lymphatic swellings and abscess, are likewise well within the sphere of aid by these cooling and antiseptic flushings and treatment of the alimentary canal. This internal irrigation does not necessarily interfere with anybody's usage or convictions as to the employment of cathartics. But if internal antiseptics can be secured without such forcing drugs, there will remain a larger capacity for other medicinal reactions, unattainable by enemas or other routine measures at the hands of the nurse. Evidences of the usefulness and harmlessness of these irrigating measures are so convincing that their omission from daily routine treatment must in time become unusual and be justly stigmatized as negligent and reprehensible.

Hernia Epigastric and Fatty Tumors in the Epigastrium.

Dr. Howard A. Lothrop (Boston Medical and Surgical Jurnal, Dec. 5, 1901). If the hernia causes no trouble, no treatment is indicated. If symptoms are present, operation offers the only means of certain relief, and this method should be suggested, provided there are no complications which would contraindicate surgical procedure. Trusses and swathes are of no use. In extreme cases of local pain without objective signs, where a hernia is suspected, an exploratory operation is justified. It is very important to free the omentum from all adhesions. As a rule, operative treatment brings early relief with a minimum of risk. Recurrence is unusual.

Hernia.

Ochsner (American Medicine, Nov. 30, 1901) suggests the following points as essential for permanency of cure: 1. The wound must heal primarily so that there be no cicatrical tissue as a point of weakness. 2. The stitches must not be drawn tightly so as to produce pressure necrosis. During the healing of every wound there is a certain amount of edema for the first few days and if the stitches are drawn very tightly, pressure necrosis will be produced and cicatrical tissue, which is always weakening, will follow. It is best to just have the stitches drawn tightly enough to bring the surfaces barely in apposition. 3. The edges

of the surface to be united must be free from fat and unstable tissue. 4. The tissues should be manipulated with the greatest care during the operation, so as not to injure them. 5. The wound should be supported by broad rubber adhesive plaster strips which aid materially in securing a desirable condition of rest. 6. The patient should be kept in bed for two or three weeks so as to give the wound an abundance of time to become firm. 7. After the opreration abnormal intra-abnormal pressue should be eliminated. We should protect against constipation and obstruction to urinary passage, and meet the condition of obesity by proper systematic dieting and exercise. Considering the chief form of hernia separately, he says: I. In inguinal hernia it is specially important to secure subsequent anion throughout between Poupart's ligament on the one side and the tissues of the internal oblique and transversalis muscles on the other. In the upper portion of these tissues the defect occurs in cases of recurrences. 1. In order to secure this condition, the portion of the sac contained in the inguinal canal must be removed well up into the peritoneal cavity, so that no portion of it can be interposed between the layers. In ordinary cases the entire sac should be removed; in congenital hernia the lower portion of the sac may be left to make a tunica vaginalis. In very large hernias with thick adherent sacs, it is well simply to resect the portion in the inguinal canal, making sure that none will be interposed between the layers. 2. For the same reason it is important to dissect away all portions of fat, loose connective tissue and muscle that might become interposed, special care being taken to expose the ledge formed by Poupert's ligament. It is well to resect any portion that reaches beyond the internal abdominal ring. II. In femoral hernia the opening through which the sac protrudes is a perfect ring, consequently, it is not necessary to do anything beyond dissecting out the entire sac well up into the peritoneal cavity, permitting the stump to retract so as to leave thering perfectly free. It is better not to meddle with the ring as all the methods devised for closing have a percentage of recurrences. III. Ventral hernia following laparotomy. Here permanency of results depends on the care with which all the anatomic layers are dissected out and the corresponding ones united. He has found it most satisfactory to insert silkworm-gut sutures down to, but not through, the peritoneum, from three-fourths to one inch apart and to leave these united until the layers have been united separately with chromotized catgut sutures and then to tie silkworm-gut sutures over all, being especially careful not to tie them too tightly. IV. Umbilical hernia. Mayo's method is recommended, which consists in overlapping of the edges of the hernial ring, from one and one-half to two inches, after removing the hernial sac and disposing of its contents according to the conditions found. It is necessary to dissect back the fat so that the strong connective tissue of the two layers may become strongly adherent. Usually the upper edge of the ring is slipped beneath the lower one at a distance of one and one-half to two inches and sutured in place with from three to five chromicized catgut stitches, then the lower edge of the ring is drawn upward and sutured in place. It is remarkable how firm a closure this method will accomplish. Ochsner has used it so far in 11 cases with success.

Intermitten Nervous Affection of Malarial Origin.

Busqet (British Medical Journal, May 10, 1901) relates the following case:

A soldier, aged 28, entered his hospital ward on May 16th, with the diagnosis of malarial anemia after a sojourn of two years in Madagascar. No morbid antecedents, syphilis, no alcoholism, and no history of urinary incontinence during childhood. The patient had noticed that at the onset of each malarial attack he passed water involuntarily, and that he did not regain control of the bladder till his temperature again became normal .During his stay in the hospital he had four attacks of ague, May 16th, June 10th, June 26th, and July 16th. Incontinence of urine occurred on each occasion, lasting five days the first time, eight days the second, and three days each on the third and fourth occasions. During the second attack incontinence of feces also occurred and lasted four days. The lesser duration during the last two attacks was probably due to the administration of large doses of quinine. Other nervous symptoms accompanied the incontinence, such as muscular weakness and rhythmical tremor of the right arm and leg, Romberg's sign was not present. And there were no sensory phenomena, hysterical stigmata,or retraction of the field of vision. It is reasonable, then, to suppose that the symptoms were due to the development of the malarial parasite in the small vessels of brain or spinal cord.

Irrigation of the Urethra.

Dr. Louis Broter (The Hospital, Dec. 7, 1901) evidently exaggerates greatly when he says that the irrigation method of treating acute gonorrhœa, "is one of the great-

est blessings that human thought and observation have furnished to mankind." Still there may be some good in the treatment, notwithstanding the style in which it is set forth by the advocate. Dr. Broter first insists upon the necesrity of obtaining complete asespis of all the nozzles and other instruments employed, and he recommends the use of certain appliances which are doubtless of considerable advantage in carrying out any such treaement, for example the wearing of an indiarubber apron by the patient, as he stands befor the surgeon during the applications, the apron having a hole for the penis in the middle of it. The solution employed is one of permanganate of potassum. 1 in 4,000 increased up to 1 in 1,000 as the disease advances. Of this solution a quart is to be used at each application. Its temperature should be at least 100 deg. F. and may be increased up to 112-120 deg. F. as the patient becomes accustomed to it. The stream is directed into the meatus with gradual increase of force. "Should it be desired to wash out the posterior urethra or the bladder the nozzle must be brought into close proximity to the meatus, at the same time telling the patient to attempt to urinate. This last act, as will be readily understood, loosens the cut-off muscles and the solution gains entrance. This is continued until an entire quart of the solution is used." After the irrigation three drachms of a 2 per cent. solution of protargol are injected through an ordinary urethral syringe. This solution is retained, if possible, for five or ten minutes, when it is allowed to flow away. The number of irrigations required varies. For the first two or three weeks they may have to be given twice a day, and then, when the discharge has changed from purulent to serous, they may be given once a day and followed by injections of zinc or lead, with or without bismuth, instead of the protargol injections. Even after the urine is clear and the discharge and gonococci have disappeared, the irrigations are to be continued once a week for another month. It is evident then that unless gonorrhœa is a very much more serious affair in New York than it is with us, this treatment does not offer any great advantage in regad to the time or the care required. Nor does it appear that even Dr. Broter trusts exclusively to irrigation, for not only does he employ the above mentioned injections, but he gives alkalies and diuretics, such as bicarbonate of soda and acetate of potash, while he finds methylene blue and boracic acid in pill three times a day a good diuretic urinary antiseptic during the first two weeks, after which he gives "oleum santali, balsam copeibæ, or the various preparations of cubeb, in capsule form." Probably the irrigations are chiefly of service in washing away the pus and mucus from the lining membrane of the urethra.

International Prevention of Tuberculosis.

In an article in which he discusses the various means employed in European countries to check the spread of tubercle, Dr.S. Bernheim pleads strongly for an international prophylaxis (British Medicul Journal, Oct. 12, 1901). He points out that although tubercle differs in some points from cholera, yellow fever, and plague, it is nevertheless as important to combat it in the same international manner. Its bacillus is full of vitality, and is often carried across frontiers, and from country to country,in railway trains and ships. No isolated effort by any one nation can, therefore, hope to be successfal. Bernheim recommends that the prophylaxis of tuberculosis be made the subject of international sanitary legislation, which could be fixed at some conference in the same way as the measures taken against cholera and the plague were decided upon. He specially refers to the good effects obtained by the tuberculin test in cases of bovine tuberculosis as carried out by Bang in Denmark; in certain parts of that country since the tuberculin test was adopted the percentage of animals that gave the reaction had fallen from 9 per cent. to 4.7 per cent., and even lower.

The Infectiousness of the Milk of Tuberculous Cows; The Bacteriological Diagnosis and the Practical Value of Tuberculin for the Extermination of Tuberculosis Among Cattle.

Robinowitsch (The Lancet, Nov. 1901) says it has been demonstrated the milk of cows suffering from general tuberculosis of the udder contains tubercle bacilli; the milk from cows with incipient tuberculosis and non-tuberculous udders is infectious; and that tubercle bacilli are present in the milk from cows with latent tuberculosis, revealed by the tuberculin test. The only reliable method of proving the presence of tubercle bacilli in milk is by animal experiment (intraperitoneal injection), since by microscopical examination the bacilli may be missed if not present in large numbers, and their mieroscopic differentiation from other acid-resisting bacilli in the milk does not as a rule, correspond to the extent of the disease in the animal; nor does the clinical diagnosis of tuberculosis, especially of tuberculosis of the udder, enable one to judge whether tubercle bacilli are secreted with the milk

of the afected cows. Tuberculosis of the udder may escape detection altogether, or be diagnosed as simple imflammation until histological examination and inoculation experiments prove the contrary. Interstitial mastitis or cyst formation of the udder may be mistaken, clinically, for tuberculosis. Repeated inoculations with the milk may fail to show the presence of tubercle bacilli, though the clinical diagnosis of tuberculosis of the udder may be confirmed at autopsy, and great numbers of tubercle bacilli be detected microscopically in the interstitial tissue,but not in the milk ducts. The presence or absence of tubercle bacilli in the milk is greatly dependent upon the extent of the disease in the organ.

The only quick and sure method of diagnosing tuberculosis among cattle is by the use of tuberculin, which fails in only 2.9 per cent. of all the cases subjected to the test. The extermination of bovine tuberculosis is practically impossible without the aid of tuberculin, and combined with the clinical and bacteriological examination, it furnishes the safest means of obtaining milk free from tubercle bacilli as well as rearing cattle free from tuberculosis.

Laryngeal Paralysis and Their Importance in General Medicine.

J. W. Gleitsmann (New York Medcal Journal, Dec. 14, 1901). The prototype of cortical paralysis is seen in hysterical aphonia in which the muscles subject to the will-power (the abductors and their adjuvants) do not respond to attempted voice production, but in many cases retain their function for reflex acts, such as coughing, crying from pain and during sleep, with ability to sing, but not to talk. Certain Sexual events, psychical influences, direct trauma, reflex action as from adenoids or nasal polypi may also cause lateral adductor paralysis. All the lesions enumerated produce bilateral paralysis. Cortical may also follow symmetrical tumor, syphilis, tuberculosis, softening, etc. Paralysis of the pneumogastric, reccurrent, and posticus nerves vary in appearance according to the exact site on the nerve at which the disturbing cause acts. Organic causes may either be from the bulb and spinal column or of peripheral origin. The former include softening processes, hemorrhages, syphilis, tumors, diphtheria, progressive bulbar paralysis, amyotrophic lateral sclerosis, syringomyelia, and tabes. Peripheral causes are tumors of the neck, aneurysm of the aorta, innominate, or right subclavain, mediastinal tumors, enlarged peribronchial glands, pericarditis, pleuritic adhesions, trauma, infectious diseases, influenza, scarlatina, typhoid fever, toxic influeces [lead], or rheumatism. These latter act by causing a peripheral neuritis. The importance of bearing all these possibilities in mind arises from the fact that an sbductor paralysis may antedate all the usual symptoms of locomotor ataxia, and one cord in the median line may be the only danger signal of an an incipient aneurysm. Another equally important point for practical medicine consists in the abscence of any laryngeal subjective symptom in many cases in which only unilateral abductor paresis is present. It does not produce dyspnoea under ordinary circumstances or any alteration of the voice, as perfect approximation of the cords takes place in phonation, and to the patient himself his serious conditions is unknown. Hence in all doubtful and obscure cases a thorough examination of the larynx is just as necessary as is an examination of the urine.

Laryngeal Tuberculosis and Pregnancy.

A. Kuttner (Journal of Laryngology) submits the following propositions: With women in whom the prognosis is helpless, one should treat laryngeal tuberculosis only in the usual manner, and, if necessary, perform tracheotomy. With women in whom the general prognosis is favorable, one should wait so long as the laryngeal tuberculosis is slight [little erosion, a circumscribed ulcer]. As soon as infiltration takes place, or the disease tends to become diffuse one should inform the patient of the danger of her condition, and, after her consent is obtained, undertake tracheotomy as soon as possible; and should this not work favorable in a few days bring about artificial abortion. The earlier the pregnancy is interupted, the more favorable are the chances for the mother, because the strain of labor is less the smaller the fœtus is, and also the loss of blood which occurs in artificial abortion is proportionately small. From the seventh month of pregnancy the chance for the mother becomes worse, because great exhaustion usually follows the strain of delivery. In advanced laryngeal tuberculosis it is advisable to undertake tracheatomy before delivery, or, at least, to hold one's self in readiness for its performance, in order to obviate the risk of sudden suffocation during delivery.

Massage of the Eyeball.

Casey A. Wood, (Journal of the American Medical Association), says that massage is one of the latest remedies in ophthalmic surgery. It may be carried out by an indirect method, using pieces of cotton-wool mounted upon sounds, with or with-

out buttonheads or other devices. Indirect massage with the bulb of the finger placed on the skin of the lids is to be preferred. In some cases direct massage of the eyeball may be employed, but in most instances the indirect method by stroking movements with slight pressure on the exterior of the eyelids is quite suffictent and less difficult to carry out.

Indirect massage should never produce pain and rarely more than a passing discomfort. If the massage is employed in the treatment of the lids, the patient should be told to look down in treating the upper lid, and up in treating the lower lid. If the cornea is to be treated, the patient should look directly forward. The duration of each treatment should rarely exceed three or four minutes, and the movements should be circular, centrifugal, and centripetal. To-and-fro pressure is required to meet the conjunctival areas about the inner and outer canthi. The treatments should be at intervals of from one to three days.

In beginning the massage he instils a drop or two of cod liver or castor oil, which is thoroughly distributed through the conjunctival sac. Mercurials can be added to the oil and can often be used in quite large doses if they are prepared with care. An ointment of the nitrate of mercury made with the brown cod liver oil instead of lard allowed to stand for a week or ten day, and then diluted with from 25 to 50 per cent. of cod liver oil, is uieful. It dropped from the end of a glass rod into the lower sac. If the massage movements are begun at once, the smarting is very slight. Such a method of treatment is useful in chronic infections of the conjunctivæ, in ulcers of and deposits upon the cornea, for the temporary relief of glaucoma. and for some forms of retina lembolism. Generally speaking, massage is contraindicated in acute processes.

Measurement of the External Urethral Orifice in Women.

G. B. Miller, (Bulletin of the Johns Hopkins Hospital for August, 1901) says that the measurement of the lumen of the female urethra is given by Gray and Quain as one-fourth of an inch. The experience of Kelly in urethral surgery is that the external urethral orfice represents the narrowest portion of the urethra. In dilatation within moderate limits, practically all the laceration which occurs takes place at the external meatus. In view of the fact that no extended series of investigations have been made upon the diameter of the external urethral orifice, 100 gynecological cases were measured with a slender metal cone, calibrated from two to twenty millimeters; the instrument was pushed into the urethra as far as it would readily go, and the measurement was then read. Of these 100 cases the smallest urethral orfice was found to be four millimeters, and the largest twelve millimeters, the average diameter being 7.8 millimeters. In cases with prolapsus it was found that the meatus averaged larger than in those where there was no relaxation of the vaginal outlet.

Movable Kidney.

Morris, in The Lancet, says that a kidney should be considered abnormally moveable when the whole, the greater part of the lower half of the kidney, descends so that it can be felt readily by bimanual examination. In certain extreme cases the kidney is even out of place during normal respiration, and to these cases the term floating kidney is properly applied.

There is a great discrepancy of opinion as to the frequency of movable kidney,it being estimated at from 1 to 22% of all persons. This discrepancy may be partly accounted for because the methods of examination commonly employed generally check or prevent the respiratory movements of the kidney by crowding it back into the renal fossa, and because methods of detecting movable kidney are not systematically employed. Several effectual methods of examination have been described, but none of them seem to be as generally known or practised as they should be.

The patient is placed on his back with the shoulders slightly raised, the spine resting flat on the mattress, with the lower limbs slightly flexed. The side to be examined should be close to the edge of the couch. One hand is placed below the ribs in the lumbar region, the other hand flat upon the front of the abdomen just below the costal margin near the outer border of the rectus muscle. Gentle pressure should be made from behind, and sustained while the hand in front gently and steadily depresses the anterior abdominal wall upward, backward and outward. The patient should then be directed to take a deep inspiration, and with this the movement of the kidney can usually be felt. In testing the mobility of the kidney the knee elbow position or upright position is sometimes of value. The physical signs may sometimes be not ascertainable because of thick abdominal walls, obesity, elongated shape of the thorax or high position of the kidney. In addition to the physical signs the subjective symptoms usually complained of are pain, disturbance of digestion, neurasthenic or hysteric symptoms. Occasionally, but com-

paratively rarely, there are changes in the urine and intestinal complications, jaundice or gastric dilation caused by compression or dragging.

The diagnosis can only be considered justifiable when the kidney is actually felt. In the treatment of this condition belts and bandages are of no avail if the condition is not complicated by enteroptosis, and when employed in cases of movable kidney they increase the pain and otherwise do harm if not carefully applied. When movable kidney is associated with enteroptosis, no operation should be performed unless it is evident that the more serious symptoms are due to movable kidney alone, and operation should not be undertaken until after trial of a well-fitting abdominal support and careful dietetic and medicinal treatment of gastric and intestinal disorders. Should these means fail, nephropexy, followed by wearing the abdominal belt, should be tried. The same rule should be followed in movable kidney complicated by movable liver, or when both kidneys are movable. When movable kidney occurs in an hysteric or neurasthenic patient, palliative means should be tried before resorting to an operation, and if these fail, the patient's friends should be informed of the uncertainty of the result of operation. Statistics show, however, that a cure may be hoped for in about one-half of these cases. For uncomplicated movable or floating kidney in which the principal symptoms are pain and gastro-intestinal troubles, operation should be advised and carried out without the previous trial of abdominal supports. When renal crises are a feature of the case, nephropexy should be urged because of the hopelessness of treatment by supports, and because of the constant risk of hydronephrosis and recurring pain. When a movable kidney gives rise to no inconvenience, operation should not be thougnt of. and a belt need not be worn.

Note on the Morbid Conditions Simulating Adedoids.

Wingrave, (British Med. Jour.) believes that many children with symptoms pointing to the existence of adenoids are found upon examination to be suffering from some other affection. As both digital exploration and posterior rhinoscopy are often impracticable in young children, many erroneous diagnoses are probably made by the profession at large. In some cases our only course must be to practice the touch under an anesthetic.

The conditions which have been found ts simulate adenoids comprise the following;

1. Diminutive choanæ and nostrils. These occur frequently and in association with low vault of the pharynx and other anomalies of development. These defects appear to be of rachitic orrigin in some cases.

2. Paresis of the soft palate and pharynx. This affection is symptomatic of a number of condition.

3. Septal anomalies. The septum may be prolonged backward into the nasopharynx, dividing the latter into two compartments.

4. Forward projection of the vertebral column, usually due to deformity of the arch of the atlas.

5. Retropharyngeal abcess and the enlarged lymph ganglia from which the former originates.

6. Undue prominence of the soft parts over the internal pterygoid plate.

7. Ordinary neoplasms of the nasopharynx.

Nature of Internal Lesions from Superficial Burns.

John McCræ (American Medicine) after a careful study of this question, reaches the following conclusions:

1. The entire pathologic picture presents great similarity to the conditions found in the diseases characterized by the presence of toxins of bacterial origin in the blood.

2. Damage to the lymphatic tissue is a constant feature, but is not necessarily focal some cases presenting only diffuse degeneration. The cases which live but a few hours after infliction seem more likely to present a focal condition than those which live a longer time, as the condition which I interpet as proliferation and phagocytosis is one which may rapidly disappear.

The focal lesions are not a true necrosis, but rather a proliferation of the endothelial cells of the reticulum and the capillaries, and a phagocytosis by the leukocytes and endothelial cells, to which latter is due the fragmented, disintegrated appearance which suggests a true necrosis.

Operations Upon Diabetics.

Guildersleeve (Journal of Medical Association) says:

I would not operate upon any patient suffering from diabetus without first explaining either to the patient or some one in authority the possibilities which might follow.

I would refuse to operate on an elderly diabetic subject for any of the simple affections, such as benign tumors, etc., unless there was some special reason for operating

and it is certainly a good rule to always examine the urine in any case of gangrene occurring in elderly people.

In the painful, rapidly-spreading gangrene which often occurs in these cases, and which is bound to cause their death if lelft alone, I believe in prompt and high amputation. As a rule. I wait until a line of demarcation forms; but in some cases, although the line has not formed, one can judge fairly well about how high it is going by the appearance, and in such a case I would operate before the line had actually formed. Some of these cases are inoperable; they may have complete gangrene of the foot, and the leg may be in good condition. Again, the leg may be indurated and boggy, and this condition may extend as high as the knee or above it, and it would be poor judgement to operate on such a case. Another class of cases is the dry, comparatively painless gangrene which often affects the toes in these patients. These cases will often run their course and be cast off, and as a rule they should be left alone, so far as operations are concerned.

Furuncles and carbuncles frequently occur in diabetic patients. The furuncles will usually succumb to the general treatment for diabetes. In the case of carbuncles, however, surgical treatment such as hot applications and the knife at the proper time are required.

Puerperal Eclampsia.

Dr. W. Herzferd (Medical Press and Circular, Dec. 11, 1901) remarks that in the first stage of labor in primiparæ, pressure on the ureters is found very frequently, which in the absence of material kidney or liver changes must be looked upon as important from an ætelogical point of view. In eighty-one autopsies hæmorrhagic hepatitis was found thirty-two times; in four of these there was also compression of the ureters. In another twenty-eight cases there was parenchymatous degeneration of the liver and kidneys, also with four cases of compression of the ureters. In twenty-one cases no symptoms referable to the liver were observed. In 32·3% of the cases (eighten times) there was bilateral compression of the ureters; in 46·6% (thirty-eight cases)chronic Bright's disease with more or less grave changes in the heart, and in 31·1% (twenty-five times) parenchymatous degeneration of the kidneys, acute nephritis, &c. From a consideration of these facts, and from the typical occurrence of compression of the ureter in primiparæ in whom eclampsia occurred,the writer draws the conclusion that in the majority of cases the disposition to the outbreak is due to changes in the uropoietic tract. Further support to this view is given by the cases in which eclampsia occurs in the earliest stages of pregnancy. In these cases serious nephritic changes are always present, and often were so before the pregnancy began, a circumstance of great importance as regards prophylaxis. In spite of these views the author does not speak of a uræmic eclampsia, but believes that the eclampsia is an intoxication. If these views, on being tested, are found to be correct, early delivery will be indicated, and perhaps even Cæserean section, as being quickest mode of effecting it without further damage to the urinary organs.

Pathological Lesions in Rheumatoid Arthritis.

C. F. Painter (Boston Medical and Surgical Journal, Nov. 28, 1901) believes that the bacterial etiology of this disease, at least in the form that Bannatyne claims is not proved. This point is established by these facts: 1. Failure to demonstrate satisfactorily the organism itself, and the equally significant fact that the lesions found in the joint.tissues are not such as are produced by any bacterial cause. 2. That the "chronic" stage in the disease does not present lesions, either gross or histological, which are at all derived from the "acute" stage, and that therefore we must exlude from rheumatoid classifications any disease with hypertrophic bone leisons. 3. It is suggested, though not proved, that the changes in rheumatoid arthritis may be due to faulty metabolism, the absorption from the digestive tract of toxins, or some chemical production of intestinal digestion, which ought not to be thus absorbed, if all tissues were properly performing their function.

The Symptoms and Treatment of Movable Kidney.

H. Morris, (London Lancet. Nov. 30, 1991)says a kidney is deficient in its proder means of fixity and must be considered abnormally movable under any of the following conditions: 1. When the whole kidney descends during deep inspiration below the examiner's fingers on deep palpation. 2. When the greater part of the kidney so descends as to be felt between the two hands. 3. When the lower half of the organ so descends, and can bo so felt. In the cases in the third group, and in some of those in the second, the organ cannot be retained between the fingers, but slips back again on expiration. 4. When the kidneys is out of position during natural respiration, and may be easily felt. This constitutes the so-called "floating kidney." 5. When

the kidney moves hhorizontally, upon the plane of the posterior parieties, and does not drop forward or inward.

The Symptoms of Movable Kidney. 1. The physical signs discoverable by palpation. A thick abdominal wall or a long thorax declare a kidney not movable on a single examination, even though most carefully and systematically made. 2. Subjective symptoms. These may be entirely absent, or there may be *a*, pain; *b*, troubles of digestion; *c*, neurasthenia and hysteria; *d*, more rarely, some change in the urine or in the urinary functions; and *e*, most rarely, some extreme complication due to compressing or dragging, such as intestinal obstruction, jaundice, or great gastric dilation. But in no case are we justified in positively concluding that a patient's sufferings are due to movable kidney unless we actually feel the kidney to be movable. The commonest error is to mistake an enlarged gall-bladder for a floating kidney. The most frequent effect of movable kidney upon the kidney is hydronephorsis, either intermittent or constant. In cases of simple or uncomplicated nephroptosis, belts and pad are practically useless.

His conclusions as to treatment are as follows: 1. In movable kidney with enteroptosis no operation should be performed until it is clear that the serious symptoms are due to the kidney alone, and thorough trial of a well-fitting abdominal support and dietetic treatment has been made. Should these fail, nephropexy should be tried. 2. In case where both kidneys are movable, they should be fixed one after the other at an interval of a week. 3. In hysterical or neurasthenic patients, operation be tried only as a last resort. 4. In uncomplicated cases of movable or floating kidney, the operation of nephropexy may be confidently advised, without previous trial of belts or rest. 5. When renal crises are a feature, nephropexy should be strongly urged. 6. When a movable kidney gives rise to no inconvenience, an operation ought not to be thought of, and a belt need not be worn.

Prostatectomy the Method of Choice in the Management of Prostatic Obstructions.

Fuller (Journal American Medical Association Nov. 2 1901) regards a man under sixty-five years of age as young in connection with prostatic surgery, and as middle-aged between sixty-five and seventy-two. He has operated successfully upon a man of seventy-eight. A surgeon should be influenced by the age of a patient, his physical and mental condition. An arterio-fibro-sclerosis is decidedly unfavorable. Putrid urine and ascending pyelitis, with some involvement of the kidney, should not stand in the way of an operation, but should strengthen the plea for speedy relief from the obstruction.

For radical relief in the majority of cases the question resolves itself into prostatectomy or nothing, unless suprapubic fiistula. In the minority of cases it may be proper to consider, in connection with prostatectomy, castration and the Bottino operation.

Prostatectomy is demanded in the following groups: 1. Those not amenable to urethral instrumentation. 2. Those demanding vesical or perineal drainage as well as relieve from prostatic obstruction. 3. Those in which renal infection exist as a complication. 4. All those complicated by phosphatic calculi in which litholapaxy is impracticable. 5. Those in which the prostatic mass causing obstruction is such as to require direct removal, not being amenable to less radical surgical treatment. He thinks it very likely that the criticism that castration is now out of date is justifiable, but has seen well-authenticated cases in which it gave some relief.

The Bottini operation has one great recommendation: It is easy of accomplishment. That is its chief advantage over prostatectomy. The avoidance of cutting and the use of electricity makes it popular with many. Some surgeons consider the operation of not very grave import, while others regard it as a procedure of considerable surgical magnitude. The mortality is around ten per cent. The operation cannot be considered radical, as in most of the best results, some and often much residual urine remains. The statistics of a new procedure cannot be relied upon. Those of castration in the beginning were even better than those now reported from the Bottini operation, but have not been verified by further reports.

The Quinine Treatment of Typhoid Fever.

Goldscheider (Medical Press, Dec. 4, 1901), In the high continued fever the effect is unsatisfactory in the majority of cases, especially in the first half of the stage. In the very early days, and in the latter half, on the other hand, the effect is better. If a dose of quinine acts only on the duration of the exacerbation, it is advisable to give another dose twenty-four hours later—perhaps a larger dose; but if the evening temperature is materially influenced it is well to pause for a day as the effects become less. In the *continua contiuens* large doses must always be given 1.5 to 2 grns. Its action may throw light on a doubtful case. Its efficacy in short-lasting continued at a favourable prognostic, whilst a maximum

effect in medium length of curve not unfrequently indicate severe infection. A good effect may indeede be seen in cases that end fatally, but the fatal result is often due to complications and not to the fever itself. In regard to the question whether a morning or evening dose is better, the author has arrived at the conclusion that the evening administration is the more rational. Generally speaking, it is best to give the quinine about eight o'clock in the evening.

The Reputed Deterioration of the Race.

Certain alarmists, says the Medical Press and Circular, have drawn attention recently to the deterioration of the English race. It has been said that the war has shown, by the small percentage of men who are up to the required standard for service, that Englismen are degenerating from a physical point of view. It is, however, very questionable whether this be so. It must be remembered that war imposes a special strain for which civilians are usually not prepared by training, and a physical endurance not required in ordinary life. Therefore, to assume upon such data that a race is deteriorating is altogether erroneous and fallacious. It has been proposed to measure and weigh school children twice a year in order to find whether the suspicion of deterioration is justified, but we fail to see how far such a process would prove preventive. Whether these suspicions be correct or no, the importance of prevention is paramount. More care must be taken in the education of our children, and their work must be better adapted to their relative capacities. That great and terrible curse of the country, the craving for stimulants induced by the arduous struggle for existence must be met and overcome. The cure for deterioration of race lies in preventing excessive drinking, in stopping the over-taxing of the physical system, in remedying the transmission of an evil heredity in the perpetuation of the race, in securing the best possible kind of education for our children, and in arming them to secure the best possible future for themselves and their offspring. It occurs to us that one outcome of the war is certain; the experience which has been gaied by our soldiers after their long and severe exertions will result in our posessing the finest modern army in the world.

Report of a Case of Interstitial Pregnancy.

R. H. Pierson (New York Medical Journal, Dec. 8, 1901) reports a case of this condition in which the gestation originally occurred in that portion of the tube within the thickness of the uterine wall, the interstitial portion. As the ovum matured it forced open the uterine end of the tube and produced the above condition. To diagnosticate this condition prior to abortion and exploration is extremely difficult or impossible. In the case mentioned the careful digital exploration of the uterus, under suitable antiseptic precautions, did no harm and brought to light conditions least suspected. If placenta forceps had been used and the membranes simply twisted from their site, in all probability the tubal portion of the placenta would have remained to become a medium for the growth of septic germs. Two questions arise in considering this case: (1) what was the relation of the uterus to the tubal cavity while the fetus was in the uterus? (2) what would have been the results if the pregnancy had not been interupted? From the condition of the tubal cavity held so much placental tissue, when the uterus was distended by the presence of the fetus, the ring was much larger thun at the time when first observed. Contraction of the uterus had contracted this ring. As gestation progressed and the uterus enlarged, it is possible, by the time the pregnancy was completed, the relations would have been nearly those found in the normally pregnant uterus, and the labor at full term would have occurred and a satisfactory result would have taken place without interference of any kind.

Technique of Cesarean Section.

Matthew D. Mann (American Medicine, Sept. 28, 1901) when performing celiohysterotomy, makes an incision eight inches long. After the abdomen is opened all bleeding is stopped. An elastic tube should be placed about the crevix to act as a tourniquet; this should not be tightened until needed. Next the uterus is incised, either in the median line or between the cornua. The uterine incision should be made slowly down to the amniotic sac; it should then be rapidly enlarged with blunt-pointed scissors until it is about six inches long. If the placenta is in the way, it should be pushed one side or torn in two and the child rapidly extracted. After the child is extracted the uterus should be made to contract by manipulation or by an injection of saline solution. As additional excitants the endometrium may be painted with tincture of iodine and the patient allowed to come partly out from under the anesthetic. After the uterus has contracted the uterine wound should be closed with catgut, preferably formalin catgut. Two rows of sutures are used—one of heavy gut which passes through the muscular wall without pen-

etrating the decidua; the other of fine gut for the peritoneal coat. After the uterus is closed the abdomen is freed from liquor amnii and blood and the abdomen closed.

When performing celiohysterectomy the abdomen is opened as before, but the incision may be extended lower than in the Sanger operation. The tourniquet is then applied. If the child be alive, the same steps should be followed for its extraction as in the other operation. If the child be dead and the uterus septic, then the entire uterus should be raised from the abdomen, sponges or towels being placed behind it, and not opened until after its removal. The operator has the choice of usiug clamps and tying the vessels after the uterus is removed, or of tying as he goes. The latter plan seems preferable. The first ligature should be placed beyond the tube and ovaries on the broad ligament, so as to include the ovarian artery. The round ligaments should then be tied, after which the peritoneum should be incised all the way around the uterus. It can then readily be pushed down so as to seperate the bladder from the cervix. After the cervix is freed of the peritoneum, the uterine arteries shoul be tied on each side, when the cervix may be either taken out completely or cut off a little below the internal os. If the cervix be infected or be the seat of a cancer, or be very much injured by previous manipulation, or if it be the seat of marked lacration from previous labor, it should be entirely removed. Usually very little hemorrhage will be encountered. All bleeding points should be carefully secured with fine catgut ligatures. As the uterus can be drawn well up out of the pelvis the Trendelenburg position is hardly necessary, though some have advocated its employment. The next step is to pass a piece of iodofrom gauze through the cervix into the vagina, the upper end of it being left projecting a slight distance above the cervix. The object of this is to prevent an accumulation of blood below the closed peritoneum and above the cervix. After this the peritoneal flaps should be carefully trimmed, and then brought firmly together with the continuous catgut suture, all stumps being turned in and covered by peritoneum. The abdominal wound is then closed, and the patient treated as in the other operation.

Significance of Apex Pneumonia.

E. F. Cordell, (Maryland Medical Journal October, 1901) says, by some it is regarded as a localization of great fatality, and by others its mortality is said to be slight. The upper lobe is involved in the proportion of about one to three. The combination of involvement of the apex upon one side and of the base upon the other is very rare. The righ apex is affected far more frequently than the left. Apex pneumonia is not rare in early life, and the relative frequency of the involvement in the base is the same in the child as in the adult. The general mortality of apex and basal pneumonia is the same. The mortality of uncomplicated apical disesae in the child is almost *nil*. Phthisis is raae in connection with acute lobar pneumonia, and when it involves the apex it shows no particular tendency to eventuate in tuberculosis. Involvement of the apex in adults may sometimes be accompanied by a mild course of the disease.

Strangulated Hernia.

Dr. J. J. Brownson (American Journal of Surgery and Gynecology) says that the danger in strangulated hernia has always been caused by delay. It is the condition that kills, not the operation. In all cases of abdominal pain and vomiting, the attendant must be sure to examine the hernial regions. Systematized details always bring success. When called to a case of strangulated rupture, the mode of procedure will depend upon whether the doctor is a surgeon or not. (*a*) If not an operator, he should make gentle taxis. If not successful give chloroform, and try again. If the hernia is still unreduced, give the patient a hyperdermic of morphine, put on a hot compress, and send for a surgeon at once; (*b*) If the attending physician is a surgeon he should make slight taxis. If he fails to get the rupture back, preperation for operation should be made while the chloroform is administered. When the patient is anesthetized, herniotomy should be done, and a radical cure performed. Every case of hernia, whether strangulated or not, should be subjected to the radical cure. It should be the rule to operate to prevent strangulation, as well as for strangulation.

Is Cancer Increasing in Frequency?

In the Inaugural Address at the opening of the 182nd session of Jervis Street Hospital, Mr. Austin Meldon, (The Medical Press and Circular, Nov. 13, 1901) brought under the notice of the profession some very striking statistics of the prevalence of this disease in these countries. The figures were derived mainly from the returns of the Registrar-General for Ireland, and are based on investigations which have been carried on in his office for some years past. An examination of these figures shows that not only has the rate increased, but that in the actual numher of deaths recorded there is

a corresponding increase. When, however, we come to examine the different age periods, we find that the increases is much more marked for the common cancer age—that is, between 35 and 75—than for the other periods. The question whether these figures indicate that cancer is becoming more prevalent or not in Ireland is answered by Mr. Meldon in the affirmative, chiefly on the grounds of the inadequacy of any other explanation, and, also, because it appears that cancer is the only disease which is causing a gradually increasing mortality all the world over. It has been urged that, of late years, as a result of better sanitation and other causes, the mortality from diseases other than cancer has decreased, and that many of those now die of cancer would formerly have died of other diseases before they were likely to develop cancer. It is also urged that, as our methods of diagnosis are gradually becoming more and more accurate, so deaths are more and more frequently registered under their true causes, it must, however, be remembered that accuracy of diagnosis is more likely to diminish the number of cases registered as cancer than to increase them. We must also bear in mind the increased number of cures which the more radical methods of modern surgery have undoubtedly produced. If, however, the prevalence of the disease is actually on the increase, we should expect that this increase would not only be noticed in the typical age period, but also in the other age periods in which cancer is not so common. The question whether cancer is increasing is intimately associated with another. Is the disease infectious or not? In spite, however, of the vast amount of work done on the subject, and of the very positive and diagnostic associations made by some pathologists, the verdict still is that the parasitic origin of cancer is not proven. It will be remembered that, many years before the *contagium vivum* of tuberculosis was idenfied, its infectious nature was asserted, and we might almost say demonstrated. so that even had the tubercle bacillus not been discovered prophylactic measures against the disease might have been adopted. So also in the case of cancer; if it can be shown to be infectious, much may be done to stay its ravages, even though its true cause remains a mystery. The map presented by the Registrar-General in his report shows in a graphic way the striking partiality of the disease for cercertain counties in Ireland. Thus, in Kerry, the death-rate is only 2.76 per 10,000, while in Armagh it reaches 10.09, and generally the rate is higher in the Eastern than in the Western counties. It would be interesting to compare the zymotic death-rate of these districts, for were it the reverse of the cancer rate it would go far to support the objection advanced above. It should be remembered that, at present, the two great varieties of malignant tumors, sarcoma and carcinoma, are to a great extent confused together, and, indeed, are often quite indistinguishable, save by careful histological investigation, consequently it is impossible to say definitely to which of the two increased death-rate from cancer is merely an apparent one, or due to an actual increase in the disease, must, we fear, for,the present, like the question of its parasitic origin, be regarded as undecided.

Poisoning by Boracic Acid.

Rinehart (Therapeutic Gazzette. Oct. 15th, 1901) describes two cases of the symptoms of poisoning with boracic acid. In 2 fatal cases cited by Wood, of Philadelphia, the symptoms were nausea and vomiting, hiccough, an erythematous skin eruption, fall of temperature, and fatal collapse. The mind remained clear. The textbook dose of boracic acid—10 grs. every four or five hours—is regarded as too large and prone to induce symptoms of cardiac enfeeblement and collapse.

Case 1. Man, aged 38 years, had posterior urethritis treated with weak Ag No. 3 solution locally, and 5 gr. doses of boracic acid by the mouth every four hours. Two days later there followed extreme weakness, and an erythematous rash beset with paupules and vesicles developed on the back of the hands and between the fingers. Pulse weak, but not accelerated. The symptoms subsided slowly upon withdral of the boracic acid, and reappeared on resuming the drug. The case would probably have ended fatally if the cause of this alarming collapse had escaped detection.

Case 11. Man, aged 50 years, had a suprapubic lithotomy performed on him, and the bladder washed out daily with saturated solution of boracic acid, and 5 grs. of the drug given by the mouth every four hours. Ten days after the operation there appeared an erythematous rash about the wound and spreading over the hypogastrium. Scales and crusts formed on the rash, and the skin thus affected became thickened and infiltrated as in eczema. On discontinuing the boracic acid the eruption slowly disappeared and on resuming the drug it reappeared in two days. The drug was slowly eliminated from the system, and hence the rash could be made to appear with ease. Albuminuria and weakness became prominent symptoms during the appearance of the rash in this patient; the pulse was feeble, nausea

was present, and at the height of the eruption the temperature rose one or two degrees above the normal.

Progressive Muscular Dystrophy, with the Report of an Autopsy.

Drs. Sachs and Brooks (The American Journal of the Medical Sciences. Vol. cxxii, No. 1). The patient was first seen when thirteen years old, and remained under observation until his death from pneumonia nearly eleven years later. A younger brother presented the clinical symptoms of Erb's juvenile type of the disease, and died of a cardiac lesion. A third brother has the ordinary form of pseudohypertropy. The patient was practically well until ten years old, when he broke his leg; one year later fracture of the same leg is said to have occurred again, and afterward the boy could not walk well. After an attack of typhoid fever at the age of 12 he could not walk at all. The condition changed very little during the years of observation, and may be summarized as follows: A large head undergoing constant rotary movements, congenital nystagmus, macroglossia and thick speech—all stigmata of degeneration. The general intelligence was fair. There was a marked atrophy of the muscles of the shoulder of girdle, upper arm, forearm, deep spinal layer and thighs. Both feet were club-shaped and with calves large and touch. He could not raise his head nor perform a single movement of the trunk or limbs. Reflexes were absent; re-response to the faradic current disappeared as the atrophy increased.

The autopsy showed broncho-pneumonia, fibroid myocarditis and fibrosis of all the voluntary skeletal muscles. No gross lesion was apparent in any part of the nervous system. On microscopical examination the muscle substance was found to be replaced by diffuse areolar connective tissue and fat; there was slight general perivascular connective tissue hyperplasia, modern interstitial myocarditis, extensive degenerative changes in a few of the cells of the posterior root ganglia, and rare, irregular types of cytoplasmic alterations without morphological change in the ganglion cells of the spinal cord. The smooth muscle tissue and the heart muscle cells were unchanged, showing that the disease process was strictly localized in the voluntary muscles. The degeneration of the ganglion cells of the cord might have been due to post-mortem change or to the terminal infection which was the direct cause of death. The negative findings of the case show that the wasting of the muscles could not be attributed to disease of the gray or other matter of the spinal cord. It may be taken for granted that the disease represents a primary affection of the muscle fibre, and that the fatty degeneration is secondary to the hypertrophy and atrophy of the mucle tissue.

Surgery of the Biliary Passages.

Deaver (The International Journal of Surgery, October, 1901). Gall-stones occur in one out of every ten people, but of the wole number not more than five per cent. are pathological as regards manifestations. However, in any case, the patient may suddenly have life or health threatened; in fact, the biliary apparatus must be taken into consideration in making the diagnosis of every obscure disease of the upper part of the abdomen. The colic is caused by an inflammatory spasm of the bladder and ducts, nature making an effort to remove the stones; this is not often successful, however. Each attack predisposes to others and at the same time renders an operation more difficult; then when icterus has come, serious hemorrhage is likely, and still we cannot often postpone operation in an icteric patient. The development of phlegmonous cholecystitis is almost always fatal. Serious bleeding has been met by the author by packing, the use of opium and saline infusions. Where the bladder is to be drained, this is preferably opened into the intestine, though external fistula can be more safely made. In most cases an inflamed gall-bladder should be removed like an inflamed appendix, and the surgeon should accomplish this before serious anatomical change has taken place, and before the kineyes, etc., have been damaged by unusual materials which they have been called upon to excrete.

Tuberculosis of the Peritoneum.

W. Neff (American Journal of Surgery and Gynecology, November, 1901) says that tubercular peritonitis is a surgical disease, and should be treated surgically and not medically, for the simple reason that when treated medically patients die, but when treated surgically a cure is effected in a large proportion of cases, and a marked improvement follows in all. The proper treatment is abdominal section rapidly and carefully performed; the danger from the operation is very slight, the mortality being less than three per cent. Of the many theories advanced to account for the cure of these cases, the antitoxin theory of Gatti seems to be the most rational. It is not unlikely, however, that the good results attained are due to a combination of several of the causes assigned. Sepsis is not apt

to occur on account of the pathological changes that have taken place in the peritonitis. Antiseptics are useless, and drainage should not be employed, for it is apt to leave a permanent fistula. Most of the deaths after the operation have been due to the general tuberculosis of some other organ. The writer says the successful treatment of this disease depends upon the diagnostic ability, good judgment, technique, and skill of the man behind the knife.

Treatment of Acne Vulgaris.

Algar (New York Medical Times, July, 1901) recommends the following treatment for acne: Arsenic is useful in some cases by hastening exfoliation of the skin, but is contraindicated in acute cases. In pustular cases it may be of value by increasing the resistance of the skin to pyogenic organism. In many cases, especially in young girls, there is anæmia, which should be treated by iron. The author has not much faith in calcium sulphide. The main treatment must be local. To prevent heaping up of epthelium about the mouths of the follicles a dermal curette is useful. The skin is scraped with this to remove the tops of the papules and pustules and the epithelial heaps about the follicles. Pustules should be opened and treated with peroxide of hydrogen or 50 per cent. carbolic acid. This treament should be done several times a week. The patient should use hot water daily to the face. Where there are many comedones but few pustules the following is useful: Resorcin, ʒjss; hydra. perchlor., gr. ij; aq. rosæ ad ʒiv. This should be used often enough to cause exfoliation of the outer layers of the skin without causing much inflammation of the face. When there are many pustules, sulphur is better; Sulphur, ʒj; sodii hyposulph., ʒiv; aq. rosæ ad ʒiv. When the skin has become smooth, the patient should use a sulphur or resorcin soap. Individual lesions can often be aborted by passing into the follicle a blunt needle dipped in carbolic ocid, or by painting with ichthyol. When the skin is clear but rough and dry, the following is useful: Rosorcin., gr. xx; ol. theobromæ, ʒj. This can be perfumed and moulded into stick form. In acne indurata of the back, the back should be scrubbed with nailbrush and hot water in which is an alkaline washing powder. This softens and removes the superfluous epidermis. A saturated solution of hyposulphite of soda is the best lotion for these cases.

Treatment of Dysentery.

Dr. Plehn (Medical Press and Circular, December 4, 1901). Whenever dysentery is diagosed or even suspected, the patient has two tablespoonfuls of castor oil given. Examination of the following stools clear the diagnosis in doubtful cases, and allows an opinion to be formed as to the extent and degree of the intestinal changes that have taken place. But above all the laxative removes a large quantity of infectious material from the canal. When the immediate action of the oil has subsided the calomel treatment is begun A tablet containing 0.03 grn. is given every hour until twelve have been taken. The course is repeated the next few days, none being given during the night. It is important that the calomel be given in tablet or tabloid form, as no particles of the calomel are then liable to be left in the mouth and setting up stomatitis. Moreover, the patient must wash out his mouth with great care every time he has taken his tablet with a solution of salicylic acid. If any suspicion of stomatitis arise the gums must be scrubbed with a mop of cotton soaked in one of the solutions named. An interruption of the calomel treatment is not necessary to continue the care and trertment of the mouth for at least three days after stopping the calomel. After the calomel tablets have been given for three days, twelve tablets have been given for three days, twelve tablets of bismuth subnitrate of 0.5 grn. each should be given hourly, the mouth being looked after and treated for three or four days. Six grammes of bismuth per day are given until the stools are formed, and until nothing pathological has appeared in the stools for some days. Then the patient takes three grammes per day in doses of half a gramme. With tendency to constipations in the later stages or with post-dysenteric intestinal catarrh a quarter to half a litre of artificial Carlsbad water is given. This may be taken for some weeks with the best results after the drug treatment has been finished with. If irritability of the mucous membrane of the intestinal canal continues, Kissingen water may be given instead. The diet is of prime importance; milk diet is impracticable. During the first few weeks, until the stools are reduced to one or two a day, and until they are distinctly formed, a mixed, but exclusively liquid diet is given, the basis of which is rice cooked and strained, bouillon, eggs beaten up, gruel, cocoa, and, as far as possible, milk. A good Bordeaux is also given. When the stools have become free from mucus and traces of blood for some days, and when patients have often acquired a sharp appetite, an addition may be made of mashed potato, porridge, egg, with a light biscuit and perhaps a fruit jelly. Tropon

may also be given, best with water as a medicine, and in two tablespoonfuls mixed with water to a thick consistence and eaten with a spoon without any addition. Only twelve to sixteen days after all symptoms have disappeared should meat be given, and then that of the lightest with vegetables. A commencement should be made with scraped ham and minced fowl, and later on the more usual kinds.

The Treatment of Cutaneous Epithelioma.

C. W. Allen (New York Medical Journal, Nov. 9, 1901). The border is to be curetted thoroughly with the smallest instrument which will do the work; this prepares the way for the quick action of the caustic. While the oozing of blood is being checked by pressure, the paste is prepared as follows: Equal parts by weight of arsenious acid orthoform, or by bulk one part of white arsenic to two parts of orthoform; these are mixed with just enough water to form a paste the consistency of butter. The paste thus prepared is packed into the furrows made by the curette, seeing that it penetrates well beneath the skin at the periphery. The nunless the lesion is much over an inch in diameter, the ulcer cavity is filled level with the skin; or, if there is no cavity, a thick layer of the paste is spread over the part to be destroyed; while in either case a thin layer is spread over lint or gauze, cutting a piece large enough to extend over the skin some distance beyond the sore; but before applying this outer layer of paste a ring half an inch wide should be painted with methylen blue solution to prevent irritation.

The reason for employing orthoform to replace the acacia of Marsden's paste is on account of its analgestic properties, relieving the pain to a large degree.

In deep seated and penetrating cancers the author often uses the Czerny-Trunzck method.

The reasons given for using the paste in preference to the knife are as follows: "No matter how much care is taken, lymph spaces or channels must be cut through, and there is always a chance that the incision may not be sufficiently wide of the growth to avoid outlying foci. It is, as is well known, in the lymph channels that the epithelial proliferation takes place to a great extent. Now if, as is supposed, the products of inflammation set up by the arsenic are carried by way of the lymphatics to outlying regions, it seems a fair presumption that the treatment may be further reaching than the knife.

"In many instances the anatomical situation is such that it is practically impossible to go wide of the mark with a cutting instrument, and I am forced to the conclusion that satellitic foci have a much better chance of escaping the knife than of escaping the effects of arsenic properly applied."

Twelve Cases of Pneumonia Treated by Anti-pneumococcus Serum.

George C. Sears (Boston Medical and Surgical Journal, December 12, 1901) says that the cases treated were unsatisfactory for experimentation, as six of the patients were alcoholics, two had mitral regurgitation, two nephritis, and one arteriosclerosis, while another was pregnant and had pericarditis. Three patients died. In the nine recoveries the temperature returned to normal at about the usual time, so that the only conclusion to be drawn is that the course is not lengthened. The serum is certainly no specific against the pain resulting from the inflamed pleura, yet in some cases it gave relif. The fever was not markedly affected; while distinct benefit may not be positively ascribed to the serum, no ill effects, beyond what may occur from the use of diphtheria antitoxin, were observed. However, the results obtained, considering the unsatisfactory nature of the material, seem to justify a further trial of this form of treatment. Greater success might have been obtained if it had been begun earlier in the disease, as it was given before the third day in but four cases.

Unnecessary Operation.

It cannot be denied that at the present time there is a tendency to perform operations upon cases where, to say the least of it, operative interference is unnecessary. The editor of the Medical Press and Circular, commenting upon this subject, says: In no department of surgery is this so prevalent as in that of the nose and throat. A distinguished laryngologist has lately drawn attention to the subject in a lecture on the principles of local treatment in diseases of the upper air passages. He points out that the craze for operation is conspicuous in the case of adenoid vegetations, which came before the notice of the profession only about twenty years ago. Suddenly operation for adenoids became the rage, and every lymphatic nodule in the pharynx was promptly removed. It must be admitted that in a severe case causing obstruction to nasal respiration, operation is not only justifiable but distinctly indicated; but many non-obstructive cases do not necessitate operation, and the adenoids often disappear

spontaneously. In the case of adenoids the fault lies partly with the public, for parents ask each other if their children have been "done," as if it were a matter as necessary as vaccination. With regard to the danger of this excessive operating, in 1896 statistics were published showing that in two years and a quarter eleven deaths were reported after operation for adenoids, most of which were consequent upon the practice of obliging the anæsthetist to perform his duties with the patient in the sitting posture. Next to adenoids, perhaps operations on the nose come into the question. No one can object to a nasal spur, or other material obstacle which causes serious obstruction to breathing being removed, but every slight deviation or spur of the nasal septum does not require the saw, nor every puffiness of the turbinate bones the cautery.

Vaginal Cancer.

Williams, (Medical Record, November 30, 1901). Of all primary vaginal neoplasms, cancer furnishes less than 1 per cent. of all cancers. It is difficult to explain its orign by any theory of irritation, and he reviews the development and anatomy of the organs and mentions especially certain small bodies which were discovered by Davidsohn and are considered as aberrat offsets of cervical glands. There are two varieties of this cancer mentioned: Where the new formation does not progress much beyond the initial stage and the ingrowing cells preserve their normal form and their mutual relations are but little altered, the columns fail to penetrate deeply and the malady progresses slowly, and dissemination is exceptional. This is the tubular variety. With the more common type, the lobular form, the changes are more rapid, as other parts are secondarily affected. Several instances of vaginal cancer developing from hyperplastic lesions, leucoplasia, lethyosis, etc., have been reported. In a few case kraurosis has been known to have a similar termination. The symptoms and characteristics are pointed out and it is remarked that, as in cancer of the uterus, the dissemination of the disease in the internal organs and distant parts is not very common. The disease appears usually in the adult in postmeridian life, but in many cases it occurs an earlier age than is common with in general. In 76 cases Williams found it began between 20 and 30 years in 12, and it has been reported at a very early age, but such cases are to be looked upon with suspicion. The average age of onset in only 40 years, while that of the onset of mammary and uterine cancer is found to be 44 and 48 years respectively. Nullifertility does not seem to have been affected, the average of births being a little above the usual. In diagnosis it should be remembered that secondary cancer of this part is much more common than primary and neighboring organs from which the disease has originated must be looked for. The microscope must distinguish between the sarcomatoid growths and septicallly infected and sloughing myomatous tumors are to be generally determined by careful digital examination. Other disorders which may cause trouble in diagnosis are syphilis, tuberculosis, and chronic inflammatory affections, and he has seen one case of vaginitis verrucosa mis taken for cancer. The surgical treatment is an open question. In most cases of active or rapid and insidious progress this is impracticable with any prospect of advantage, and even the most favorable cases are apt to be disappointing as regards results. Pregnancy does not seem to be affected by the existence of vaginal cancer, though it affects, of course, the chances for the mother's and the child's life. The only surgical intervention likely to be required would be for the conservation of a viable fetus. Cesarean section is the operation usually indicated and its resuts are favorable as regards the child, though the maternal mortality is likely to be considerable.

Saving the Perineum.

A. B. Somers (West. Med. Review) says that perineal tears result during the process of extension under the influence of strong labor pains. Lacerations may be prevented by lessening the severity of the labor pains, relaxing the perineum, slowing the process of extension in order that the parts may have time to become distended, and, finally to deliver the head between, and not during labor pain; and the methods of accomplishment are by preventing all voluntary effort on the part of the patient by causing her to exhale her breath by short, panting efforts, talking or screaming: next by the use of chloroform or ether to complete surgical anesthesia if required, though a minor degree of anesthesia is usually sufficient. This checks the force of the muscular contraction and also relaxes the perineum, while well directed pressure by the hands on the fore part of the head will slow the process of extension until the parts have become sufficiently distended so that the head may be delivered by stretching the perineum over the head between pains, rather than allowing the head to be forcibly driven through the vaginal outlet during muscular contraction. The head being delivered,

care must be exercised in the same way until the shoulders are delivered and the entire process of delivery is accomplished with a minimum amount of danger to the soft parts of the mother.

Treatment of Pneumonia.

Dr. Edward F. Wells, (Medical News Dec. 7, 1901) in his presidential address, at a meeting of the Chicago Society of Internal Medicine, hed November 27th, discussed this subject. Among other things he said: "The fact that pneumonia is increasing in prevalence is *prima facie* evidence that prophylactic measures have either not been adopted or have proven unavailing. Pneumonia is caused by the pneumococcus. Pneumococcus will not grow in acid media, and in its growth it produces an acid and an albumose, which in turn probably cause the death of the organism. Its different strains vary in virulence, and somewhat in biological character. The pneumococcus is present in some part of the upper respiratory passage in a very considerable proportion of healthy persons, and it is probable that pneumonia is ordinarily due to the aspiration and slipping down into the alveoli of some of these ready-at-hand cocci." All discharges from the respiratory passage should be treated in such manner that they cannot gain access in the form of spray or dust to the respirable air. Pneumonic sputum should not be allowed to become dry, but should be burned. The tenacious, clinging expectoration should be carefully removed from the lips, teeth, etc. The mouth, throat and nostrils should be cleansed at proper interval with an acid solution, followed after a few minutes by an agreeable mildly-alkaline antiseptic solution. With reasonable care along these lines it is probable that the infected person may jeopardize only very slightly the safety of those who come in contact with him. The chief elemeut of danger in pneumonia is from the introduction of the pneumococcal toxins into the fluids of the body. This is one of the most powerful of the bacterial toxins, as may be inferred from the profound chill and raging fever which follows initial introduction into the system of an infinitesimal quantity of the poison, and this diluted almost beyond conception. That the system becomes less impressionable and more resistant to the toxin as the malady advances is evident from the fact that progressively-increasing quantities of toxins absorbed do not produce correspondingly more pronounced effects. The essayist then discussed capillary paresis, leucocytosis, and antipneumococcic sera. With reference to the latter, he said that animal experimentation with dialpzed toxins, the glycerinated extrct of dead and bodies of the pneumococcus, the serum from pneumonic patients, and the serum from animals, which have been subjected to long-continued pneumococcal inoculations, have, so, far been inclusive as to their prophylactic or curative powers, and clinical experience with the various sera which have been placed upon the market has been equally inconclusive. He was free to say, however, that he has witnessed phenomena following the hypodermic injection of such sera which lead him to believe that they are agents of real and beneficent power. In one case the injections were followed by the reappearance in the blood, while the disease was yet at its height, of those harbingers of subsiding toxemia, the eosinophile leucocytes. Analogy leads us to believe that a useful antipneumococcic serum may be produced.

He believes that the employment of oxygen inhalations, begun early, certainly at the very beginning of a slight but steadily, progressive increase in frequency and shallowness of breathing, frequently and freely given, is a useful measure, and is one of the many things which may sometimes save a life which might otherwise be lost. He uses it with strychnine, caffeine, camphor, morphine, etc., each of which agents properly, employed is of the greatest value.

The Treatment of Pneumonia.

De Lancey, (Journal American Medical Association, Nov. 9, 1901). The most serious element in pneumonia is the toxæmia, which causes degeneration of the heart muscle, while it at the same time increases peripheral resistance. The second element in degree of seriousness is the amount of lung involvement existing at any one time.

The patient should be put upon a fluid and, so far as possible, sterile diet. A large amount of pure water should be administered in order to flush the excretory organs; it may preferably be given in small quantities at frequent intervals.

The first aim of treatment should be the elimination of toxins. As the lungs, and often the kidneys, are directly involved in the morbid process, the bowels and skin remain as the eliminative organs. (1) At the beginning of an attak the bowels should be opened by an initial dose of calomel (0.5 gram), and kept so by occasional doses of saline laxative. This will not only aid in elimination, but will often help to relieve the distention of the right heart. (2) "To keep the skin active there is nothing more efficacious and less harmful than the proper use of the hot mustard foot-bate. This can

be given with next to no disturbance of the patient, the tub being put into the bed, with most excellent results as far as sweating is concerned. These baths may be kept up at four hour intervals throughout the course of the disease." . . . . Frequent and thorough cleansing of the mouth with a mildly antiseptic wash should be carried out.

The second indication is the support of the heart. The two most useful stimulants in pneumonia are strychnine and alcohol. Stimulation should not be deferred until the heart begins to fail. As soon as the diagnosis is made, strychnine may be begun in doses of 0.002 grm. every four to six hours, per mouth. As the symptoms increase in severity even as much as 0.004 grm. may be given hypodermically every two hours, with the best results. Alcohol is our next best stimulant, but in some cases seems to produce decided cerebral disturbance. It may then be replaced by ammonium carbonate or aromatic spirits of ammonia. These drugs are usually well borne by the stomach when combined with liquor ammonii acetatis and administered in milk.

The local treatment of the lung is of importance. "As soon as a portion [of the lung] is shown by physical examination to be in a state of beginning congestion, the prompt and thorough application of leeches wet cups or dry cups over the part will often stay the process there." "If dry cupping is resorted to, it should be very thorough, skin and subcutaneous tissue rising up in the cup to as great a height as possible, and turning blue or purple while there." The cups should be left on for half an hour, and the process repeated every four to six hours. With ice the author has not produced the relief of congestion desired.

If evidence of overdistention of the right heart appears, such as cyanosis, decreasing tension in the pulse, enlarged liver, pulsating veins, and an increase of the area of heart dullness to the right, prompt relief is often gained by removal of eight, ten or twelve ounces of blood from the median vein in the forearm. In cases in which heart failure is imminent without signs of dilatation, hypodermic injections of sterilized normal salt solution may tide the patient over his critical condition. Injections of salt solution by rectum are usually less prompt and far-reaching in their effect.

In cases of restlessness and sleeplessness chloralamide, chloral, Dover's powder, morphine, or hyoscin hydrobromate may be recommended.

Ulceromembranous Angina.

Sobel and Herrman (New York Medical Journal Dec. 7, 1901) report 12 cases of this condition with one exception, the ulceration was limited to the tonsil. The ulcers varied in size, were irregular or oval in shape and chancroidal in character. In all cases there was some elevation of temperature, in four it ranged from 101 deg. F. to 103.4 deg. F. With two exceptions the submaxillary glands were enlarged, and always on the same side as the lesion. In all the cases the microscopic picture was practically the same in that the characteristic fusiform bacilli and spirilla (Vincent) were present in very large numbers. The bacilli appears to play the more important part. The following points make their specific character highly prabable: 1, Their uniform presence in very large numbers or nearly pure culture; 2, their gradual disappearance during the process of healing, and their rapid disappearance when the ulceration heals; 3, the presence of so few other microorganisms; 4, cases in which the condition has been transmitted from one individual to the other. The prognosis is invariably good, a cure usually being effected within three weeks. A solution of silver nitrate, 3% to 5%, was applied daily in most cases. In two instances Lugol's solution was used, and it seemed that iodin solutions were more efficient although more disagreeable. Alkaline mouth washes, solutions of potassium permanganate, etc., were given when necessary.

When and How to Introduce the Stomach-Tube.

M. I. Knapp, in the Medical News Dec. 7, 1901 advises the operator to stand at the right side of the patient, putting his left arm around the back of the patient's neck. This accomplishes two things: 1, the arm gives the patient an agreeable support to his neck; 2, with the arm around the back of the patient's neck, the operator has the most robust patient under his physical control. Then attempt to introduce the tube, which has previously been immersed in water—no other lubricant is necessary. With the left arm around the back of the patient's neck, the proximal end of the tube is held between the thumb and index of the left hand—the tube running through the palm of this hand and the opening of the tube away from the operator. This left hand is kept close to the patient's mouth, The tube, held this way, insures the operator against any of the stomach contents spurting upon him. The distal end of the tube—that part which goes into the stomach—is now taken between the thumb and index finger of the

right hand, in the manner in which a pen is held, and introduced into the patients mouth, which must not be opened any wider than is absolutely necessary letting the tube pass all the time between the flexed third and fourth fingers of the left hand. The object of this last procedure is to limit the side montions of the soft tube and prevent kinking; it gives a certain degree of stiffness to the soft tube. As soon as the tube appears to have reached the posterior pharyngeal wall, the patient is told to swallow and keep breathing deeplv. The tube is now fed into the stomach, the end still passing between the third and fourth fingers of the left hand. It is not necessary to have the patient protrude his tongue, or for the operator to put his finger as a guide into the patient's mouth. The cyanosis of the patient need cause no alarm, as it is due only to a momentary cessation of breathing caused by the effort to expel the tube, in which the patient might succeede if the tube were not held with the right hand.

Syphilitic Brain Disease.

In the course of a lecture at the Queen's Square Hospital, delivered on October 22d, Sir William Gowers drew attention to certain points of much interest in regard to prognosis and treatment in cases of syphilitic disease of the brain (The Hospital, Dec. 7, 1901). The diagnosis may be right as to the syphilitic nature of the disease, even though as between tumors and arterial disease it may be wrong. In the latter condition the greatest care is necessary in giving a prognosis. There are certain conditions when, for example, a syphilitic arteritis implicates the whole circumference of the vessel, in which restoration is impossible. Whatever may be the precise way in which treatment acts upon syphilitic growths we know that their ultimate fate is to be changed into cicatrical fibrous tissue which will shrink and contract, and thus it is that when an artery is involved in its whole circumference the final result must be an interference with the circulation, depending as to its degree partly on the amount of the disease, partly on the possibility of collateral circulation becoming established. Hence, however confident we may be as to our power of influencing a syphilitic growth, we can by no means be sure of the persistence of the lumen of a syphilitic artery. Moreover, there is always the possibility of the formation of clot in such vessels and when an artery is so closed its cavity cannot be restored. All this has to be thought of in regard to prognosis, for with our knowledge as to the control which remedies have over syphilitic disease there is no doubt a tendency to allow the nature of the constitutional malady to influence the prognosis favorably without sufficient consideration being given to the particular process to which the symptoms are directly due. When the blood supply is interfered with by an obstruction in an artery the effects, to which the symptoms are due, are of a purely secondary and simple nature, and the fact of syphilis existing cannot influence the prognosis.

Coming now to the treatment and considering the use of iodide in cases of cerebral syphilitis, although this drug must be given the treatment must be carefully adjusted to the patient's state. One must not forgot the power with which iodide is credited of promoting the coagulation of the blood, lest by giving over large doses one might facilitate the formation of a clot in a narrowed vessel. A dose of 15 grains three times a day is large enough to influence such disease if the patient has not been taking it before, and is as much as it is well to give under the circumstances. The lessened susceptibility to a drug, and the lessened therapeutical activity of a drug in those who are accustomed to its use are matters of much interest. To obtain the full influence of iodide for example, and the same is true of mercury, the system must not be accustomed to its presence. It may happen that a moderate dose of iodide, such as 10 grains three times a day, may quickly cause the disappearance of all symptoms of a gumma in the brain, and yet while this same dose is being continued another gumma may develop. Evidently the organism by which syphilitic disease is produced may become so accustomed to the remedies by which they are usually controlled as to develop in spite of them. Hence the importance of treatment being energetic but also intermittent.

Pure Urea in the Treatment of Tuberculosis.

Henry Harper (Philadelphia Medical Journal, Dec. 14, 1901) believes that urea exerts a specific action on tuberculosis quite as marked as mercury on a syphilitic node, salicylate of soda in rheumatism, or iodide of potassium in bronchal asthma. Cases suitable for the administration of urea are, 1, Circumscribed pulmonary tuberculosis of the lung, in which the sputum exhibits abundance of bacilli and only a limited number of cocci; 2, Enlarged tuberculous glands situated on any part of the body; 3, Tuberculous pleurisy (here in my cases urea acted like magic); 4, Tuberculous laryngitis; 5, Lupus; 6, Tuberculosis of the peritoneum with fluid in the peritoneal cavi-

ty; 7, Hydrocephalus in children; and 8, Tabes mesentrica or carreau.

Cases which are unsuitable are: 1, Pulmonary tuberculosis in which cocci predominate, practically covering the whole field of the microscope, and the tubercle bacillus being scanty; 2, Acute miliary tuberculosis with a high temperature (103 degrees F. or over); 3, Gastritis; 4, The last stage of tuberculosis when the patient is dying; and 5, When the patient has a temperature over 101 degrees. To carry out the intensified method a beginning should be made with small doses of from 10 to 15 grains thriee daily, gradualiy increasing them up to 40, 50, or 60 grains as a maximum. Practiaally this amounts to one-half per cent. of artificial urea added to the normal quantity circulating in the blood.

The Iodides in Aneurysem.

Rosenbach (British Medical Journal, Nov. 23,1901) is of the opinion that iodides are of no value in the treatment of aneurysm, and that they are even hurtfnl in arteriosclerosis, but the great bulk of medical opinion and experience is directly contrary to this. That iodides exercise a beneficial action in many of these cases seems to be proved by the experience of their almost universal use in practice. Stockman and Charteris have made systematic observations on the blood-tension and pulse-rate of numerous patients who, for one reason or another, were taking potassium or sodium iodide. These observations were made with von Basch's sphygmomanometer and Gartner's tonometer. They used only the iodides of sodium and potassium, generally in doses of 15 to 30 or 40 grains per day, although a few patients had up to 180 grs. and one man was taking 300 grs. Some of these cases had healthy circulatory systems: others suffered from renal or cardiac disease, aneurysm, arteriosclerosis, and bronchitis. One of them had very severe iodism, others had it slightly. In no case did any fall in the blood pressure occur, or any change in the rate or the rythm of the heart. Even the man who suffered so severely from iodism maintained his arterial tension unimpaired, although he said he felt very depressied and ill. In these cases the depression seems to be due to the coryza and partially to an action on the nervous system. Iodides neither directly weaken the heart nor dilate the arterioles. In animals iodine or the iodides, when given by the mouth, do not alter the dynamical conditions of the circulation. When given intravenously, potassium iodide exerts the marked depressing potassium action on the heart, whereas sodium iodide is practically without this effect.

The Serum Treatment of Syphilis.

Moore (British Medical Journal, Oct. 26, 1901) reports thirty cases of syphilis treated with serum obtained from patients with tertiary syphilis. The serum was obtained by means of cantharidin plasters, and from 10 to 40 cubic centimeters injected every three or four days for one or two months. Cases of refractory syphilis quickly improved, and the improvement is said to be more lasting than after a course of mercury or iodides. Syphilitic sores heal under local application of the serum or compresses. The best sernm was ob-ained from robust persons in the later stages of syphilis and those patients who were treated with the serum yielded in turn better serum than those who had been treated with mercury.

Symptoms Pointing to the Necessity for Operative Interference in Mastoid Suppurations.

At a meeting of the New York Academy of Medicine, October 9, 1901, Dr. Wendell C. Phillips says that pain is the most marked symptom of mastoid involvement appearing in the course of acute suppuration of the middle ear. This pain, which may or may not be constant, comes on usually some time after the excrutiating pain which precedes suppuration of the middle ear has passed away, is dull, heavy, not definitely localized, but diffused over the surface of the temple. With it there is a feeling of fulness, heaviness and pressure over the entire parietal region. Tenderness upon pressure over the mastoid is another prominent symptom, and it is especially significant over the mastoid antrum. Facial expression of deep anxiety and unhappiness was given prominent mention, as also the position of head usually hanging forward and leaning towards the healthy side. Temperature was also considered, but it was not a very important symptom in mastoid involvement. The drum membrane should be very carefully inspected, and when it is found to he bulging, together with a swelling of the posterior superior portion of the wall of the external auditory canal, a picture is given which constilutes one of the most prominent symptoms of mastoid suppuration. Prolonged tenderness upon pressure over the region of the antrum, together with the bulging described, gives sufficient reason for operative interference, especially so when the pus contains streptococci or staphylococci.

Free incision of the drumhead carried

well through the attic region into the external canal establishing free drainage and allowing the escape of pus, will often completely relieve all indications of mastoid involvement.

Irrigation with hot water was recommended through all the stages of middle ear suppuration and even after mastoid symptoms appeared. Phillips believed the ice-coil should not be used longer than 24 or 36 hours, and he considered the continued use of poultices almost as bad; in fact, any prolonged attempt at aborting mastoid involvement was to be deprecated. The patient should be placed in bed and remain there until all unfavorable symptoms had passed away. The mastoid cells should be opened externally with no delay in all cases of acute suppurative inflammation, when a permanent remission of symptoms has not been brought about by free drainage through the drum membrane, or by the application of the ice-coil or poultices or from local blood-letting.

Sterilization of Catheters.

Nancrede and Hutchings (Medical News, Nov. 23, 1901) concludes that: 1. An infected soft-rubber catheter cannot be completely sterilized by boiling under 4½ minutes. 2. Mechanical cleansing from all dried pus, coagulated blood, or mucus will render sterilization easier and more rapid. 3. Elastic (English web) catheters and soft-rubber catheters can be repeatedly boiled for five or more minutes without roughening of their surfaces or diminution of their elasticity and strength. 4. Chemical sterilization by immersion in a 1 to 2000 mercuric chloride solution for five minutes does not sterilize any variety of catheter which has become infected, at best only inhibiting the growth of the germs. 5. The results of experiments indicate that chemical sterilization should never be employed for catheters which are to be retained in the bladder for any length of time, unless subjected to a very prolonged action of the mercurial salt. 6. If corrosive sublimate is used, it must be in concentrated solution, and for a much longer time than the period usually considered sufficient. 7. Formalin vapor will sterilize infected instruments in twenty-four hours. 8. All methods of sterilization commonly employed should be continued for much longer periods than the minimum time required for destruction of germs in the laboratory. 9. English web catheters can apparently be more readily sterilized by heat than can soft-rubber catheters, probably on account of their interior construction.

Strychnine in Uterine Hemorrhages.

Dr. H. J. Bolt (Merck's Archives) finds this drug peculiarly useful in atypical hemorrhages from the uterus, when unassociated with inflammation of the uterine mucosa. Not infrequently virgins without any detectable pathologic changes in the pelvic organs are subject to profuse and irregular menstruation, sometimes to such an extent that they are anemic and quite weak. When irregularity and profuseness are associated, the drug should be taken continuously for three or four months, in doses of 0.05 Gm. (¾ grn.) three times daily, except during menstruation, when the dose should be taken at intervals of two or three hours until the flow is diminished. The longer intervals of administration may be resumed. Even in a few instances, when dysmennorrhea existed, this drug was said to have alleviated the pain. This was, however, not the rule; on the contrary, generally no effect was observed on that symptom. When only profuse menstruation is present the periods being regular, the administration of stypticin should be commenced four days before the expected flow, the same dose at the same intervals being given as in the other condition. The hemorrhages after confinement and atypical bleeding at the climateric are also frequently benefitted by this remedy. Stypticin is cotarnin hydrochlorate. Cotarnin is a fractionation produced by oxidation from narcotin, an opium alkaloid.

Two Cases of Disarticulation at the Ilium.

Gallet (Quarterly Medical Journal, Nov. 1901,) says that eight cases of the interilio-abdominal operation have been published; since then other three operations bring the total to eleven cases with eight deaths—a sufficiently high mortality.

Gerard, at the French Congress of 1895, suggested the name of interpelvic amputation or suprailiac amputation of the lower limb. In most cases the operation has been done for osteo-sarcomas of the pelvis or end of the femur; it has also been done for extensive traumatism of the iliac bone, or for extensive tuberculous invasion of this bone. Of Gallet's cases, one was for extensive disease of the ilium from old coxitis for which excision had been unsuccessfully done and the other for osteo-sarcoma of the thigh and pelvis. There are two methods of doing the operation, viz., Jaboulay's, in which the disarticulation of the iliac bone with the limb is done at one sitting; and that of Girard, in which the disarticulation of the ilium is done some time, even months, after the disaticulation of the thigh;

perhaps the latter proceeding is less serious but it is not always applicable. No definite plan of cutting flaps, etc., can be followed, as the tumor or the traumatism causes the operator to get his incisions where possible. The most important point is preventive hemostasis. The vessels must be tied. But how to tie them? He thinks it is better to tie the external and internal iliac rather than the common iliac artery, because if the common iliac be tied the ligature might be placed near the aorta, and a clot forming near the bifurcation might lead to gangrene of the other lower limb. Nance had a case where the healthy limb showed gangrene and died in twenty days after the operatiou. Both of Gallet's cases died, although no great quantity of blood was lost and the operation was done rapidly (within an hour), and they presented syptoms like those of patients who die after splenectomy.

Temperature, Pulse, and Respiration in the Diagnosis of Diseases of the Brain.

J. T. Eskridge (New York Medical Journal Sept. 28,1901,) says a change in the character of the respiration,rather than in its frequency, is sometimes one of the first positive symptoms of organic intracranial disease, especially of tuberclular meningitis. A respiration that is more frevuent while the patient is asleep or unconscious than it is during the waking or conscious moments is very strong evidence of organic disease af the brain so situated as to interfere with the respiratory center.

Apoplexy due to hemorrhage is attended with greater disturbances of the temperature of the body soon after the occurrence of the stroke than is the case when apoplexy is due to thrombosis or embolism. The cerebral hemorrhage attended by hemiphlegia is usually accompanied by a slow fall in the auxiliary temperature, occurring within an hour or less, and the fall is most marked on the paralyzed side. After reaction has occurred, which commonly takes place in from elght to twelve hours, there is a rising temperature, which is a little greater on the paralyzed side.

In cerebral thrombosis there is little disturbance of temperature before the end of the second day,except in the severest cases. An elevation beginning with the second day, extending to the fourth day after the stroke, is significant of thrombosis and shows that secondary softening has taken place, which, if extensive, makes recovery doubtful.

If the temperature on the paralyzed side remains persistently elevated some weeks after a stroke, it shows that the softening and inflammation are going on, and the prognosis is correspondingly grave.

It is premature to formulate definite conclusions on the temperature, pulse, and respiration in injuries to the brain. It is possible that if these cases received more detailed study, useful deductions might be made from a considerable number of them. The following tentative conclusions are justifiable:

(*a*) In injuries to the head where the temperature does not reach normal or slightly above after a few hours after the receipt of the injury the prognosis is very grave. The higher the temperature, the greater the possibiliy of concussion and laceration of the brain and its membranes. The greater the variation of the temperature from normal, either above or below, the worse the prognosis.

(*b*) A rapid, weak, intermittent, or irregular pulse denotes danger. The pulse that is at first slow, but soon after becomes rapid, indicates a progressive intracranial lesion and justifies a bad prognosis.

(*c*) An exceedingly slow intermittent respiration indicates a lesion at the base and posterior fossa. A respiration at first nearly normal in frequency, but which later becomes quite rapid, indicates a rapidly fatal pulse.

The Ultimate Results of Operation of Cancer of the Uterus.

Charles P. Noble (Philadelphia Medical Journal, Nov. 9, 1901) draws from the views expressed by prominent gnyecologists the following conclusions:

The majority of cases of cancer of the uterus, when they consult the surgeon, are too far advanced for the hope of a radical cure. German statistics indicate that it is less true now than it was ten years ago. This is a hopeful indication, as showing that the teaching of surgeons concerning the necessity of early diagnosis and early operation for cancer is beginning to bear fruit. It may be claimed confidently that at least ten per cent. of the cases of cancer of the cervix operated upon remain free of the disease at the end of five years, and may be considered cured. For timely operations of carcinoma of the corpus a good prognosis can confidently be given. It is evident that seventy-five per cent. of these cases are permanently cured by hysterectomy, whether vaginal or abdominal. The abdominal radical hysterectomy for cancer of the uterus, involving the removal of the pelvic glands and the parametria along with the uterus, is still upon trial.

Of thirty-two patients operated upon by the author, six are living and free from recurrence at the end of five years, which is equal to eighteen per cent. There are nine patients living and free from recurrence at the end of three years. The best opportunity for improvement in these results is in the direction of early diagnosis. It is the duty of the profession to recognize that cancer is curable. The falsity of the common doctrine of climacteric hemorrhages should be appreciated and taught to women. The use of the cnrette and microscopic study of the scrapings is almost invariably essential.

Traumatic Neuroses.

Patrick (Journal of the American Medical Association, Dec. 14, 1901), says pain, tenderness, paresis or paralysis, hyperesthesia, anesthesia, incoordination, tremor, dizziness, tachycardia, syncopal attacks, vomiting, loss of weight, impaired speech, convulsions and poor vision are not necessarily indications of organic disease. Atrophy, reaction of degeneration, incontinence of urine or feces, retention of urine (generally) loss of deep reflexes, bedsores, Babinski's sign, ocular or facial paralysis, optic atrophy or neuritis, hemianopia, glossy skin, rapid and uniform ankle clonus, impaired papillary reaction, semierection of penis, and anesthesia corresponding exactly to a peripheral nerve or spinal segment, indicate organic disease. In nearly every organic case it is impossible to determine exactly where anesthesia ends and normal sensation begins. In functional disease the distance between these is often no more than one-twelveth of an inch, and the line of demarcation rapidly shifts. Demonstration may be facilitated by suggestion.

Early diagnosis is important in treatment as hysteria is nerve born, it develops and may be checked if detected in the germ.

What Protection Have the People Against the Dairy?

Dr. D. M. McMastes (Philadelphia Med. Journal. Dec. 14, 1901) says that, so far as laws made for the protection of food are concerned, milk, which is a universal food, has less protection than any other. Nothing absorbs impurities more rapidly than does milk. The writer believes that it is proven beyond doubt that that transmission of tuberculosis from man to animal and animal to man is an assured fact. He is convinced that tuberculosis can be transmitted through milk. Dairymen should be impressed with the fact that the number of bacteria in milk depends upon four things: 1. The original amount of germicidal substance in the milk over which they have no control; 2, The number of bacteria falling in during the milking or afterward; 3. The length of time which has passed since milking; 4, The temperature at which it is kept. This subject is now with the medical profession, boards of health, the dairymen, and the people. The harmonious working of all these factors can so reduce the bacterial army that its power for destruction will be reduced to a minimum.

The Treatment of Inoperable Cancer.

Professor Czerny (British Medical Journal) read a paper at the recent meeting of the German Surgical Congress on the treatment of inoperable cancers. He estimated that about seventy-five per cent. of known cases of cancer were inoperable, and that in Germany nearly 40,000 patients died yearly of this terrible disease. The treatment of inoperative cancer was, therefore, a most important question, and which had not received sufficient attention. It was to be regretted that at the present day many surgeons lost interest in a case of incurable cancer, so that as there was no radical remedy nor operation for it, the patients were allowed to fall into the hands of quacks. Cases in which ulceration had occurred called in particular for skilled treatment. By careful bandaging and by keeping the ulcers clean much might be done to relieve the patients. The application to such surfaces of zinc chloride, by the use of gauze bandages dipped in solutions varying in concentration from ten per cent. to saturation, had a very good effect, and in some such cases recovery even took place under this treatment. Of course this was very exceptional, but in nearly all cases the patients were considerably relieved. In suitable cases the use of zinc chloride in solution or paste should be preceded by cauterization or scraping. For cauterization he preferred the actual cautery. The pain produced by the corroding action of zinc chloride did not last long, and could easily be kept within moderate limits by morphine. Subcutaneous injections of solutions of formalin were too painful. Sometimes arsenic had a remarkable effect upon these cases; it could be giver internally, as by subcutaneous injection, or used as a paste or ointment. Potassium iodide was of value for the varification of the diagnosis. After mentioning different applications, ointments and lotions which had proved themselves of value as palliatives, Professor Czerny stated that organotherapy had not given him satisfactory results, but he considered the treatment by the toxins of erysiyelas was worthy of careful study in

order that a definite opinion on its value might be formed. The mortality due to cancer was increasing, especially in the densely populated towns, as that produced by tuberculosis was diminishing. In conclusion, Professor Czerny suggested the erection of a German cancer hospital after the example of the English cancer hospital, of which he gave a brief description. The discussion was not productive of any novel views, but it was pointed out that the corroding effects of zinc chloride were some times attended by the danger of destroying the walls of a blood-vessel, with consequent serious bleeding.

Toxic Effects of Acetanilid.

Francis T. Stewart (Philadelphia Med. Journal, September 7, 1901) says: Within the past two weeks I have seen two cases which prompt me to write concerning the danger of toxic effects from acetanilid when used as a dusting powder on abraded surfaces. The first patient had sustained an extensive burn of the left lower extremity. I covered the raw surface with Thiersch's skin grafts, taken from the right leg and thigh, and asked an assistant to dress the right limb while I completed the left. Early next morning the patient became cyanotic, collapsed, and unconscious. On investigating the cause for such an alarming and unexpected episode, I learned that the right leg had been copiously dusted with acetanilid.

The second patient was a baby, aged four months, suffering from intertrigo of the scrotum, buttocks, and thighs. A neighboring physician advised a liberal application of the following powder: Calomel, 3 ss; bismuth subnitrate and acetanilid, aa 3ii. The following day intense cyanosis developed. With the first case fresh in mind, the cause of the trouble was easily found.

Both cases reacted readily. I do not know of a fatality following the external use of this drug, but can conceive its possibility, especially if the patient be debilitated from age or disease.

In aseptic cases it has no place; in septic cases there are more efficient and less dangerous agents at our command.

Transverse Incisions In Celiotomy.

C.G. Cumston, [Annals of Gynecology and Pediatry, October, 1901], says that he has employed this incision in some forty-five cases. The incision through the skin is made parallel to the uper limits of the pubic hair. The skin and cellular tissue are cut through until the deep fascia is reached. The lower and upper borders of the wound are then freed from the underlying deep fascia and retracted so that the incision becomes elongated from above downward. This admits of a vertical incision of five or six centimeters through the deep fascia. He makes the deep incision over the inner border of either the right or left rectus muscle, and when the inner border of the muscle is exposed the muscular mass is pushed forward, exposing the posterior sheath of the muscle. When the abdomen is once entered, the abdominal wall is held apart by the usual retractors. Through such a combination of transverse and vertical incision he has performed total hysterectomy, and has been able to do most of the ordinary work on the tubes and ovaries. The deep incision is commonly only six centimeters in length.

State and Individual Prophylaxis of Tuberculosis During Childhood, and the need of Children's Sanatoria.

S. A. Knopf, (New York Medical Journal, Nov. 30, 1901) gives the following experiences of authorities as to bacilliary transmissions: 1. Lartigan reports four cases, and even it these it was possible that there was hereditary predisposition with subsequent bacterial infection. Benda thinks spermatozoids incapable of transporting immotile bacilli. 2. Walter examined microscopically 230 different preparations from the testicles and 63 from the prostate glands, coming from 21 patients who had died from pulmonary tuberculosis, and could not find a single bacillus in any one of them. 3. Straus, who has made extensive experiments in this direction, repeatedly transplanted portions of the various organs of a fetus from a mother in the last stages of consumption into guinea pigs, and never succeeded in producing tuberculosis in these animals. 4. von Leyden failed likewise in his experiments to inoculate tuberculosis by means of organs taken from a child which had died a few minutes after birth and which had a consumptive mother. 5. Noccard, who only experimented with animals, took the organs of 32 fetuses from four tuberculosis rabbits and eight tuberculous guinea-pigs, and inoculated 32 guinea-pigs, all with negative results. From these data the author assumes two cardinal points: 1. That tuberculous infection, contracted in whatever way, during infancy or childhood comes from without and not from within. 2. That there may, however, exist a hereditary predisposition to tuberculosis. As to the frequency of tuberculosis in childhood, Bollinger, in 500 autopsies of children of all ages up to the fifteenth year, found lesions

of tuberculosis in 218 cases. In 150 of these the lesions were active, and 68 latent. The maximum death-rate from tuberculosis lesions in childhood is reached between the second and fonrth years.

MISCELLANEOUS.

A New General Anæsthetic.

There are a number of minor operations in surgery that occupy from five to twenty minutes, a period of time too long for completion under the anæsthesia of nitrous oxide gas. To meet this difficulty the admixture of oxygen and nitrous oxide has been tried, but the compound has not met with generl favour, and its use has never been very general. Cocainisation of the cord in the hands of some French surgeons has given good results, but in quite a number of cases the results have been disastrous. Schieich's infiltration method has gradually lost ground, if, indeed, it could ever be said to have been in favour in this country. For a time the freezing methods by evaporation of ether and chloride of ethyl were tried, but at best they were only suited for a very limited group of cases. It is, therefore with pleasure that we note the good results that are being obtained by the use of pure chloride of ethyl as a general anæsthetic. At the recent Congress of Surgery M. Malherbe, who has been using the anæsthetic since 1898, when he first used it in the the clinic of Professor von Hacker, speaks highly of its properties as an anæsthetic and its comparative freedom from toxic or other undesirable after effects. We concede that the chorous of praise which ushers in new remedies should be largely discounted without there are good grounds for anticipating that the drug will prove a satisfactory and safe general anaesthetic for minor operations generally. We will do no more than draw attention to the fact that it belongs to the ethyl group, and that its percentage of chlorine is small. All the volatile ethyl compounds have anaesthetic properties and, as a rule, are not lethal; indeed, the oxide of the radical principally produces its injurious effects by producing inflammation of one or more of the tissues than by direct action as an anæsthetic. One of the great troubles of the use of the oxide is its irritating suffocative effect on the respiratory mucous membcrane which the antecedent use of nitrous oxide or chloroform does not wholy overcome. The chloride of ethyl, if we are to judge from the clinical reports, has no irritant action on the respiratory tract, and it has the further advantage of acting very quickly, and is not followed by the headache, vomiting, bronchial irritation, and renal pains which so often follow etherisation. The patien quickly recovers from the anæsthetic effects of the vapour, and the return to consciousness is complete. M. Malherbe (Le Progres Medical) employed the anæsthetic 170 times without one unpleasant result, and in each case found the effects of the chemical were uniform. We cannot, however, judge from the experience of one surgeon in so small a number of cases, but we think a good case is made out for its tentative use.—*Medical Press and Circular, Dec. 14, 1901.*

Antiseptic Doormats.

Of all the crazes that the inventors' brain has launched on the stream of time few can compare in grotesqueness with the antiseptic doormat. Latter-day science has shown that the reign of bacteria is well-nigh universal. Practically the only places devoid of these tiny organisms are high mountains, frozen climes, and mid-ocean. As everyone knows many of the necessary processes of nature, as decay and fermentation are carried on by the agency of bacteria. On the other hand, many maladies that attack mankind are caused by the invasion of microbes. In towns the dust is specifically contaminated by a vast amount of organic material, of which a good deal is doubtless brought into houses by the boots of inmates and visitors. To render those boots aseptic would require a prolonged exposures to hot air, and would certainly be beyond the powers of any doormat. Besides, even supposing the doormat to act as an efficient safeguard in prevenjing the entrance of boot-borne bacteria of evil nature there is still the unceasing invasion of the house by air-borne microbes. From whatever standpoint the matter is viewed it is impossble to avoid the conclusion that the ioventor of the "antiseptic doormat" is a crank whose misplaced ingenuity were worthy of a better cause. At the same time any adequate provision of doormats and scrapers is essential to every sanitary house. The systematic cleansing of the doormat is a point tkat does not always command the atttention it deserves, even in otherwise well regulated households.—*Medical Press and Circular, Dec. 11, 1901.*

Diuretics and Kidney Disease.

Elliott classifies the diuretics and discusses their action. (1) Except in cases of irritant epithelial diuretics (turpentine, cantharides, etc), the entire class of diuretics

may be said to exert its effect on the urine by acting indirectly through the circulation. (2) Owing to the necessity of sparing the kidneys all irritation, drugs given for diuretic purposes should act indirectly rather than directly; consequently the secretory diuretics are contraindicated in irritative and inflammatory renal conditions. (3) In functional urinary disorders, diuretics are mainly useful to overcome concentration and hyperacidity of the urine, and simple diluents and salines are the best. (4) In acute nephritis salines are permissible throughout and are beneficial by increasing elimilation and clearing the tubules of inflammatory debris. Subcutaneous saline infusions are the best eliminants in desperate cases. (5) In chronic nephritis the cardio-vascular diuretics are most useful, owing to the fact that oliguria and dropsy are usually the results of circulatory failure. Dropsy, under such circumstances, being of cardiac origin may be benefited by cardio-vascular stimulants in case the kidneys are not too much damaged. (6) Dropsy of purely renal origin is not amenable to favorable influence by diuretics. (7) Although the morbid processes in the kidneys may give the primary suggestion, the condition of the heart and the circulatory apparatus in most cases determine the choice of an agent.—*Indian Medical Record*, Nov. 13, 1901.

Feeing the Nurse.

Evidently things are getting in bad shape in England, if we are to believe the statement made by a correspondent in a recent number of The Lancet. There are rumors that there is a division of the fee among some of the members of the profession here but this division is between the surgeon or the consultant and the family physician of the patient. On the other side, however, they seem to have gone one better and a division of the fee is made with the nurse. According to the correspondent, certain medical men over there are paying sums from a shilling to half the confinement fee, or more, to the nurses in attendance, who, to use their own words, make their living from "following the doctors." This tipping of the nurses is done with the hope that the recipient of the fee will recommend the doctor to future patients and, in other words, act as his drummer. As The Lancet editorially comments, the probability is that things are not quite as bad as this correspondent makes them out to be, even in England, where tipping is such a common every-day and every-where affair.—*Jour. Am. Med. Association.*

Diet in Pregnancy.

The question of diet in pregnancy has two aspects—the popular and the scientific. Up to the present time it must be admitted that the former has shadowed the latter, that it has to a large extent covered it as with a mantle of fog, through which some few scientifically ascertained and confirmed facts loomed forth dimly to be discerned. Of late, however, there have been signs of lifting of the fog curtain, and here and there things are coming into sight, and others are losing that unnatural magnitude which fog-shrouded objects often show There is a freshening breeze of scientific investigation, and the mists are rolling away.

Let us glance for a few moments at the popular aspect of the subject, at what we have called the fog-bank hanging over the subject. It will be profitable to look only at two parts of it. There is, first, the dictum that a pregnant women must eat enough for two—the popular advice as to quantity; and there is, secondly, the notion that if the prengnant woman does not get whatever article of diet she longs for, the unborn infant will suffer from the maternal non-satisfaction—the popular belief as to quality. With regard to the former a certain faraway physiological truth underlies it, for there can be no doubt that a special strain is put upon the maternal resources in pregnancy; but as generally and confidently interpreted by the public to eat enough for two simply means to eat double the usual amount, and thereby to eat too much. Further, even supposing for a moment that the dietetic difficulties of pregnancy could thus be got over in this arithmetical fasion, to be logical the popular advice oughot to be "eat enough for one and a varying fraction of one"; at about the mid-term of gestation the woman ought, therefore, to eat enough for one and 1-112, and at the full term enough for one and 1-16. Since, however, most healthy persons habitually eat more than enough for one, it may reasonably be concluded that the pregnant woman who eats heartily consumes quite sfficient food to supply the wants of herself and her fraction. In regard to the popular belief as to the quality of the food taken in pregnancy, little need be said. Although it may be claimed that clinical observation has shown that underlying the "longings" of pregnant women for certain articles of food (sometimes neither nutritious nor nice) there is a true physiological need which thus finds expression (a sort of inarticulate crying-out of the tissues for acids or alkalies), yet in the great majority of cases it would be readily admitted that no such dietetic necessity lies patent or latent in the "longings" of ges-

tation. Further, there is no valid scientific evidence that the refusal of "longed-for" snacks consisting of pepper-corns and raw oatmeal or oatmeal or other dietetic eccentricities will result disastrously to the unborn infant. Monstrosities cannot be thus expeditiously made; the pregnant woman is not a teratogenic thaumaturgist of this kind.

Let us now turn (and with relief) to the scientific aspects of diet in pregnancy. Let us see if here and there we cannot find a turned-up corner, so to speak, of the fog-mantle which, as we have said, hangs pall-like over the whole subject. In the first place, there is enough scientific evidence to show that in the later months of pregnancy at any rate the fœto-maternal metabolism is of a most intricate kind and that the placenta is far from being the simple transmitter of particles (nutritious or excrementitious) as has in the past been believed. There is sufficient proof forthcoming of the selective powers of the placental epithelium to enable us to state that the transplacental interchanges are not governed solely by the laws of osmosis as they are understood by the physicist. It is during the later months of pregnancy that iron and potash pass in large quantity from mother to fœtus, so that there is produced a state of maternal hyposiderosis and fœtal hypersiderosis; this is a phenomena explainable by no simple physical law. Then, again, there is the question of the interchanges by way of the liquor amnii, a subject which has scarcely at all been studied in the light of recently discovered facts regarding osmosis and ionic action and the testing of body-fluids by kryoscopy; but undoubtedly a matter with a direct bearing upon fœtal nutrition.

There is the curious fact, if fact indeed it be, that more white blood corpuscles travel to the fœtus from the placenta in the umbilical vein than pass back again in the umbilical arteries; perhaps the matrifugal ones carry food-stuffs to the fœtus, while the diminished matripetal stream conveys the effete materials; perhaps—but let us beware of the guesser's darkening of knowledge! Again, there is evidence, not simply guesswork in this instance, that the fœtus has metabolism which is to some extent independent of that of the mother, that its tissues are assimilating and functioning at a different rate, and perhaps even in different ways from the homologous tissues in the mother. To put in somewhat more popular language, the unborn infant may have a better or a worse digestion than his mother. We know next to nothing about the fœtal thyroid, but it must be admitted that its secretion cannot be quite the same as that in the mother, for in the fœtal body no iodine is to be found, and consequently none can be present in the fœtal thyroid.

Taking all these observations together—and their number might be very considerably increased—it is clear that the question of fœtal nutrition is very obscure, and that its relation to the diet of the pregnant woman cannot be simple. We cannot by overfeeding a mother make sure that she will give birth to a large, fat child; possibly it we tried we might produce a very differenf result by upsetting the maternal digestive processes at the same every thinking physician must feel that there is a relation between maternal and fœtal nutrition, that the state of the maternal health must have an influence, determined by laws albeit undiscovered laws, upon the size and development of the fœtus.

Now, the question arises, if this be the unsatisfactory state of our knowledge of the laws which govern the interrelation of maternal and fœtal nutrition, must we suspend all attempts to influence the develpment of the unborn infant by modifying the maternal diet? Assuredly not! This has never been the manner in which medicine has overcome the difficulties she has found in her way. If we had waited for a full explanation of all the modes in which microbes and their toxins and alexins act upon the tissues—a knowledge we do not even now possess—where would the triumphs of antiseptic and aseptic surgery have been? Consequently Prochownick, of Hamburg, is to be commended for the efforts he has been making ever since 1889 to engage the attention of the profession regarding the possibility of influencing the character of the confinement, of the puerperium, and of lactation, as well as the state of delvopment of the fœtus by altering the diet of the pregnant woman. From the cases which have come under his own notice and care he claims to have shown that by putting fat women, who have had difficult and instrumental labors on account of defective action of the abdominal and uterine muscles, upon a special dietary, he has enabled them to have more easy confinements, with normal puerperia, and to nurse their children. Again, with regard to anæmic and chlorotic pregnant woman, he believes that a different dietary has been the means of giving more normal obstetric experiences to this class. Finally, in cases of pelvic contraction between 3 1-4 and 4 inches, he maintains that he has proved by means of a sereies of a 48 cases, including 62 confinements, that maternal diet can so influence the size, weight, and osseous de-

velopment of the fœtus, as to make it possible for it to be born normally at the full term, wheras in previous pregnancies instrumental means or the induction of premature labor were necessary. The cases include 17 of Prochownick's own and 31 under the care of Haspels, Swiecicki, Reijenga, and others. Obstetricians will do well to look carefully into these diet charts of Prochownick and his followers, for assuredly the results are sufficiently striking to call for consideration and imitation. It ought perhaps to be stated at once that the treatment adopted is quite wrongly called the starvation cure; it is not that.

In the meantime, the clinical work which has been done ought to stimulate the scientist to a more careful investigation of the physiology of antenatal life. It will scarcely be credited, but it is true, that it is only within recent months that chemical analyses of the placenta have begun to be made. Even the composition of the liquor amnii at the various months of gestation can hardly be looded upon as satisfactorily determined. These and many other matters might all be so thoroughly investigated in maternity hospitals; but the truth of Prochownick's statements could only be adequately ascertained in such an institution as the pro-materninty or more correctly prematernity) hospital may yet turn out to be. Meanwhile, however, we may claim that there has been some slight but perfectly perceptibly lifting of the fog curtain hanging over the whole matter, for which some small amount of rejoicing in the scientific mind is surely permissible. Nevertheless, the scientific observer will do well to hasten slowly; with such a fog and that continual lee-shore of the unknown physiological reaction of the fœtus so close at hand, it will be wise if his theories carry very little sail. A fog-bound lee-shore is proverbially and sometimes audibly dangerous.—*British Medical Journal.*

Auto-Intoxication in Epilepsy.

Hebold and Bratz have carried out a series of experiments in order to clear up the doubt which still exists with regard to the part played by auto-intoxication in the pathogenesis of epilepsy, and publish their results, together with some critical remarks in the Deut. med. Woch., No. 36, 1901. They injected the urine and blood of epileptics into dogs and white mice. The dogs received from 2 to 10 c.cm. of urine obtained (1) immediutely after the epileptic fit, and (2) one hour after the fit. The patients from whom the urine was obtained were selected because they were suffering from forms of epilepsy which strongly suggested a gastro-intestinal or other forms of auto-intoxication. In no case were convulsions produced in the dog. The blood was obtained by by wet cupping and by venesection, and was defibrinated at once, so that within 5 or 10 minutes 10 c.cm. could be injected subcutaneously. In one case the motor centres had been destroyed, so that a scar taking its place the dog was in a favorable condition for the onset of an epilectic attatk. All these experiments, too, were negative.

Two animals, a dog and a bitch, were fed on milk and alcohol in increasing doses, and kept in one kennel. The bitch gave birth after 11 weeks to a litter of puppies, who all appeared healthy, and these puppies were treated by subcutaneous injections of urine and blood, but without effect. They aimed at producing an alcoholic hereditary taint. They had as little success with white mice, although they found that mice were more suitable experiment animals, since, by way of a control experiment, they produced convulsions which preceded coma and death by injections of carbaminate of ammonia, One case only produced anything approaching a positive result. An elderly spinster, who suffered from occasional epileptieptic attacks, was suffering from migraine, furred tongue, constipation and vomiting, after a pause of 1½ year in fits. They applied a wet cup, and the blood obtained thus, when injected into a mouse in doses of 1.6 c.cm. produced twitchings after quarter hour. These twitchings reappeared after one hour, and the mouse died after eighteen hours, but without twitchings or convulsions. They conclude that their experiments fail to show any connection between the toxicity of the juices of the body and the occurrence of epilepsy, and although they do not put aside the possibility that certain forms of epilepsy may be due to auto-intoxication, they cannot support this theory until future experiments give them different results. They detail all the important self-poisoning theories, from Alt's simple explanation of epilepsy as a gastro-intestinal disturbance producing a poison which irritates the brain cells, to Binswanger aud Jolly's theory of a secondary "toxæmic epilepsy."—*British Medical Journal.*

In fearful postpartum hemorrhage, think of atropine. In uncontrollable epistaxis, think of atropine. In leakage too small to require ligating, think of atropine.

ADVERTISEMENTS.

Notes on the Treatment of Cough.*

Most practitioners will readily agree that the old remedies, which we have had at our disposal for the alleviation of cough, are not everything that can be desired. The old time-tried narcotics and expectorants often fail us when most needed, and it is espeially in chronic cases, in which cough constitues the chief discomfort of the patient, that they fail most frequently. In paroxysmal coughs, especially in whooping cough, there has always been a difficulty in soothing the irritable mucosa of the bronchi and in reducing the numbir of attacks, so as to avoid the weakening effects of the paroxyisms, without at the same time drugging the patient with narcotics until the danger line of depression has been reached.

Notwithstanding evident need for better respiratory sedatives, the chemists have given us a large number of remidies for the reduction of fever, and an innumerable number of substances vaunted as antiseptics, but have paid little or no attention to the preparation of new therapeutic agents designed to alleviate cough. Eager anticipation, therefore, greeted the discovery of the clinical value of heroin, the diacetic acid ester of morphine, by Dreser and Floret, in 1898.

Heroin has now been tested in so large a number of cases, reported by so great a number of trustworthy observers, that its status may be accepted as securely established. The sum of clinical and pharmacological experience designates heroin as a respiratoay sedative superior in every respect to the older narcotics, and withal devoid of toxic or depressant properties. Its physiological action consist in a diminution of the frequency of respiratory movements, and at the same time in an increase of the volume of the individual respiratory act. The reduction of the tussal reflexes is combined with the relief of pain without the danger of a drug habit, which exists when other opiates are prescribed.

As regards after-affects, we may, I think, accept the conclusion of Manges (New York Medical Journal, January 13 and 20, 1900), based upon a review of the work of numerous writers on the subject, that heroin is not followed by serious effects of an untoward character unless it be administered in excessive doses. My own observations, in a large number of cases, confirm this view. The only collateral effect that I noted in the use of heroin was a tendency to constipation, which is especially prominent in old persons, but is in all cases easily combated with mild laxatives. I have not observed vertigo, nor vomiting, after the administration of doses proportionate to age. There is no doubt, however, that, after all, heroin is a derivative of morphine, and therefore is to be used with that caution and judgement, which drugs of this class demand. Fortunately its very efficiency precludes the necessity of administering doses of any magnitude beyond the usual.

Next to the respiratory sedatives, the expectorants are the most essential factors in the treatment of cough. The members of the ammonium group for a long time have enjoyed well-merited preference as stimulating expectorants on the part of physicians. I wish, however, to call attention to one member of the ammonium family that has been most inexcusably neglected—ammonium hypophosphite. Its action is similar to that of ammonium chloride, but it has the advantage of being easily borne by the stomach, and of being more agreeable in taste. I was surprised to find that such a complete work as a National Dispensatory does not mention it, and it has not been received into the Pharmacopœia of this country nor into those of Germany, Great Britain, and France. The dose is from ten to thirty grains, and the salt occurs as a white laminous crystalline powder, soluble in water, having the chemical formula of $NH_4PH_2O_2H_2O$.

There can be no question as to the increased value of a combination of remedies which embodies so efficient a respiratory sedative as heroin and so trustworthy an expeciorant as ammonium hypophosphite, and therefore I determined to try the preparation known as glyco-heroin in the treatment of coughs, with special reference to paroxysmal cough and chronic, obstinate bronchial catarrhs. In the followin very brief histories I have endeavored to give the results of my experience with this preparation which in addition to 1-17 of a grain of heroin hydrochloride to the drachm and ammonium hypophosphite, contains balsam of tolu and white pine bark.

The following cases are taken somewhat at random from my notebooks:

CLINICAL HISTORIES.

1. D. G., aged 7 years. Whooping-cough of three weeks' duration. Vomiting with each paroxysm. As many as eighteen paroxysms in twenty-four hours. Thirty drops of glyco-heroin three times daily. After two days the proxysms had diminished in severity and frequency and

†Henry Herman, M. D., New York.

there were no more than five or six paroxysms daily. After four days the vomiting ceased, and the patient began to sleep soundly. The child felt better in every way and was able to play and romp about without producing a coughing spell. Ten days after glyco-heroin was first given the patien had but two or three paroxysms daily, and these were of a mild type. This state of things continued for about ten days longer, when only a slight cough remained. At the end of two weeks the patient was perfectly well.

2. L. G., aged 12 years. Sister of the above mentioned patient and was seen at the same time. Whooding-cough of a more severe type than that in the preceeding case. Forty drops of glyco-heroin (equivalent to 1-24 grain of heroin hydrochloride) three times daily. Similar course as the preceeding case.

3. M. C., aged 21 years. Whooping-cough of one week's duration when first seen, the chief complaint being troublesome paroxysms at night. A teaspoonful of glyco-heroin was ordered to be taken four times a day. Within forty-eight hours the patient reported marked improvement. Within one week the cough ceased to trouble him and he considered himself perfectly well.

4. G. V., aged 38 years. Whooping-cough of twelve days' duration. A mild type of the disease. Glyco heroin was prescribed, but proved to be of no service whatever, although the patient took a teaspoonful every four hours for ten days. A change of climate was advised, and the patient spent two weeks at Atlantic City; had the desired effect.

5. F. F., aged 2½ years. A severe attack of whooping-cough, associated with acute bronchitis. After the administration of glyco-heroin, ten drops three times daily for one week, the little patient was well on the road to recovery. After twenty-five days from the beginning of the cough the patient was perfectly well. In this case there was constipation, which may have been due to the heoin.

6. F. H., aged 5 years. Was seen after having been under treatment for three weeks and after she had been taking bromides, belladonna and other sedatives without any results. The cough was markedly worse at night, and the child was restless and peevish from loss of sleep. Ordered fifteen drops of glyco-heroin three times daily. After forty-eight hours there was no improvement and the dose was increased to twenty drops every four hours. At the end of three days the writer was surprised at the marked improvement which had taken place. The child coughed only once in twenty-four hours, and slept well at night. At the end of twelve days she was dischargedcured.

7. H. H., aged 8 years. Brother of the above mentioned patient. The same condition and the same result, but glyco-heroin had to be pushed to sixty drops three times a day.

8. I. A., aged —. Bronchitis of two weeks' standing. Various expectorants and sedatives had been used without any results. A teaspoonful of glyco-heroin given every four honrs. In three days the patient reported well.

9. S. O., aged —. Cough of pregnancy. The usual remedies had been tried without avail. Glyco-heroin every four hours, in teaspoonful doses. In forty-eight hours a most marked improvement was noted.

10. A. T., aged 23 years. Cough of pregnancy. Very troublesome. After the ordinary remedies had failed, glyco-heroin succeeded in relieving the cough in a short time. A teaspoonful was given three times daily.

11. S. H.. aged 23 years. Brochstis. Glyco-heroin, a teaspoonful, every four hours. Excellent results after the second day.

12. M. S., aged 21 years. Acute bronchitis. Glyco-heroin in teaspoonful doses, three times daily. Excellent results after two days.

13. P. O., aged 27 years. Winter cough; very troublesome. The patient gives a history of recurrence every winter. The cough was paroxysmal in character and he has taken a great variety of remedies. Glyco-heroin was given in teaspoonful doses, every four hours, and three days later great relief was experienced. The patient was then told to take the preparation twice daily, morniug and evening, until the cough disappeared.

24. W. L., aged 5 years. Whooping-cough of marked severity. Twenty drops of glyco-heroin were given three times a day, with results similar to those obtained in the other cases of whooping-cough.

15. S. W., aged 78 years. Winter cough. The writer has had this patient under treatment for cough every winter for fifteen years. Glyco heroin showed the best results, as compared to all other remedies previously used. In fact, while taking it, the patient has no cough.

16. W. W. aged 73 years. History and results similar to those obtained in the previous case.

17. M. C., aged 81 years. History similar to that of case 15, but no results

were obtained from the use of any remedy.

18. M. B., aged 7 years. Whooping-cough of two weeks' duration. Although glyco-heroin was used in doses of forty drops three times daily, no results were noted after two weeks' treatment.

19. S. M., aged 7 years. Whooping-cough of three weeks' duration. Relieved after six days' treatment with glyco-heroin in doses of thirty drops every four hours.

Of nineteen cases repoeted, there were ten cases of whooping-cough in patients ranging from 2 1-2 to 38 yearys of age. In these the doses varied, according to age, from ten drops to a teaspoonful, the intervals not exceeding four hours. The results were very satisfactory in all cases, with the single exception of case 4, a mild type of whooping cough in a patient aged 38 years, in whom nothing but a change of climate had the desired effect. In the other nine cases of pertussis, there was very prompt diminution of the number and severity of the paroxysms and an improvement in the general well-being of the patient. These effects were all the more noteworthy as they are rarely seen in pertussis on the administration of any other sedative remedy.

In the three cases of subacute bronchitis, the results were so prompt as to astonish the patients themselves. With due care the continuation of the cattarhal process into a chronic state was avoided.

In the two cases of cough, occurring during pregnancy, glyco-heroin proved very efficient. Of all forms of cough, sedatives are most urgently indicated in the irritable condition of the whole system which obtains in the pregnant state. In glyco-heroin I found a palatable combination which at the same time is free from the depressant properties of the other opiates.

There were 4 cases of chronic bronchitis, the age of the patients ranging between 27 and 81 years. As has been noted by other writers, heroin is not so well borne by the aged as it is by the young. The dose must therefore be kept down in old people, and it is for this reason that in one of the cases, No. 17, in which the patient was 81 years old, no result could be obtained. In contrast to this case stand the other two instances of chronic bronchitis in the aged (persons aged 73 and 78 years respectively), in which the effect was all that could have been wished.

In conclusion, I will say that while there probably never will be a remedy which will act with equal efficiency in all cases, the results which I obtained with glyco-heroin in a number of difficult and obstinate cases of cough enable me to express myself as fully satisfied that it is an efficient respiratory sedative and expectorant.

Tbe Treatment of Amenorrhœa with Report of Cases.

The term amenorrhoea is used to signify the failure of the menstrual flow to appear at the regular time, or the diminution of the quantity of menstual blood at the catamenial periods.

The causes of amenorrhoea are both physiological and pathological. The physiological causes are of course pregnancy, lactation and the menopause. The pathological causes comprise a variety of diseases and disease influences.

Taking cold at the time of the menstrual period and severe mental shock are causes. It is a consequential affection in the course of many diseases which lower the general health of the patient. Among these are to be mentioned tuberculosis, Bright's desease. diabetes, syphilis, scrofula, anaemia, chlorosis and other affections. Obesity, high living, severe and prolonged nervous strain, over study are all causes of amenorrhoea. Among the causes too, must not be omitted stenosis and imperfect formation of the necessary organs. It will be found that some women menstruate vicariously having monthly hemmorrhages from the nose, nipples, ear or some other organ.

After this general statement of the causes of amenorrhoea, we may take up the treatment. The treatment of amenorrhoea very naturally divides itself into two series of indications. The first will concern us with instituting such measures as will tend to correct any constitutional or local cause present. The second indication comprises the administration of such a remedy as will stimulate uterine circulation and establish vascular congestion, with contractibility of the muscular fibres of the uterus.

We find the patient suffering from anaemia it is manifestly our duty to begin at once with the administration of an eligible preparation of iron such as Ferrum Sanguinis.

When the patient has tuberculosis, scrofula or any other disease which greatly lowers the vital stamina, we find it impossible to make favorable progress without such anti-neurasthenic remedies as Phosphoglycerate of Lime (Chapoteaut), which tends to repair the tissue waste, which in these affections is vastly out of proportion.

In a word, all diseases co-existent, when the patient applies for treatment for

†Milton P. Creel, M. D.

amenorrhoea must be treated upon a plan which most promises a correction.

When there is atresia of the vagina, stenosis of the uterus, or other causes of this character present, surgical procedures alone are to be resorted to with hope of success.

It matters little whether we are treating these patients for some constitutional disease, as the cause of amenorrhoea, whether the attack is simple one, as taking cold or over study, shock or causes of that nature, we shall not have the best results unless we give our patient a remedy which fulfills the second indication for treatment —that of stimulating uterine contraction and determining vascularity, for two or three days before the time when we may expect the menses to appear.

In carrying out this indication I have never employed a remedy so efficient as Apioline. It should be given in doses of two capsules at meal time, and on going to bed for three days befor the expected menstrual period. The administration of Apioline in this manner adds to the efficacy of other remedies in that it causes healthy normal circulation in the uterus and thus tends to establish the function of menstruation. I have treated a number of cases of amenorrhoea among school girls,and have found it unnecessary to give any other remedy than this. Below I give in outline, the clinical histories of several cases taken at random from my notes.

Case I. This lady, aged 27, applied for treatment of amenorrhoea, and was found to be anaemic caused by an attack of malarial fever, from which she had never fully recovered. She was put on iron and quinine for six weeks. Three days before the menstrual period she began with Apioline capsules taking one at meals and two on going to bed. She menstruated freely and without pain and followed out the treatment the following month. The third month her menses appeared without any medicine, she having fully recovered in all respects.

Case II. This patient was a young woman who had been living in town only two months. She was not anaemic and I could attribute her amenorrhoea to nothing else than change in the conditions of her life. She had not menstruated for two months and was nervous and melancholy. I put her on Chapoteaut's Apioline, two capsules four times daily. Menses came on freely, relieving her of headaches, melancholy and extreme nervousness. She has not now in six months had any symptoms of amenorrhoea.

Case III. This lady was 40 years of age and had missed her menses for three months. I did not think this due to the menopause but the lowered state of her health caused by subacute bronchitis. She was put on cod liver oil and other remedies, which improved her general health. She took Chapoteaut's Apioline capsules every month. At the end of the third moth her general health was restored and the menses came on monthly.

IV. This patient, a young gil who worked as a cook, had not menstruated for three months. This was due to anemia following a retarded recovery from influenza. On remedies for anaemia, plus regular doses of Chapoteaut's Apioline capsules being exhibited, she made a speedy recovery.

Case V. This patient was a girl of 14 years of age. She was well nourished, but as yet her menses were not free and full. With Apioline capsules alone, her menses came on freely and she has been in good health ever since.

Sole agent for "Apioline" E. Fougera & Co., New York.

Baltimore Medical and Surgical Association.

BALTIMORE, M. D., Nov. 25, 1901.

The regular meeting of the Baltimore Medical and Surgical Association was held on the above date at the hall of the Medical and Cair., Faculty, 847 N. Eutaw St., Dr. Chas. G. Hill in the chair and Dr. Eugene Lee Crutchfield, Secretary.

Drs. Wilbur Pierce, W. J. Pillsbury, J. H. Scarff, and W. G. Beck were nominated for membership.

Dr. Jos. H. Branham reported a case of amputation of leg for gangrene following operation for popliteal anurism. In this case the popliteal artery had been ligated and there had been diminution in the mass as the exhibition of the specimen showed. The patient was 42 years old and asked persistently that his leg be removed. There was doubt if scarr would heal, also if permanently flexed joint would not follow in the case, so the amputation was performed about three inches below the tubercale of the tibia. The contents of the sac interferred with the collateral circulation and the sac was cleaned out. Another operation plus the above (following a German idea) was to clean the sac 4 or 5 days later which would do away with so many ligations. But in this case the sac was ruptured. A circulation incision was made and a drain employed. Patient showed no disagreeable symptoms.

COMMENT.

Dr. Chas. G. Hill said that he considered Dr. Branham's idea as to the point of am-

putation high up enough to allow the use of an artificial leg.

Dr. A. J. Sauer referred to a number of splints that he received from Dr. Pritchard (deceased) and in the collection was a wooden leg, which recalled an extemporized wooden leg that Dr. Hill had at one time hurriedly made for a charity patient, the same cases as an advertisement netting Dr. Hill alone from surgical cases fees no less than $2.500.

Dr. C. Urban Smith read a paper "Demonstration of Boas Oppellar bacillus of Gastric Carcinoma." He said it was not confined to cases of stomach trouble, but he found it in benign affections. It is seldom found except when we have excessive lactic acid present. To the general practitioner it is of consequence from a standpoint of diagnosis.

The bacillus is often found as of a bass ball bat appearance and again it is irregular and zig zag in appearance.

Dr. James E. Gibbons said, the diagnosis was easy on these lines and he learned much from the comment.

Dr. Chas. G. Hill said he would have liked if Dr. Smith had deliberated more fully on the subject and bring out all the points regarding the early history, diagnosis, clinical aspect pathology, varied courses these cases present and then handle them from a standpoint of treatment.

Dr. Jos. H. Branham said it was interesting to know exactly when to operate in these cases.

Dr. C. Urban Smith said that brain symptoms showed the reception of toxines. The Boas Oppelar bacillus was in this case an incident yet in a sense also a factor of the trouble.

Dr. J. E. Gibbons, stated that he was amused with the thought of our regular postal card reaching him on Saturday and later to learn of a post-mortem being held on Sunday, in this case where the results were to be demonstrated. The patient died a day after the card was mailed. It reminded him of the story of the Irishman who ordered from the undertaker a coffin for his wife, and when asked when did she die? replied, "she is not dead yet, but will die in the morning, for the doctor said so, and he knows what he gave her."

Dr. J. H. Branham stated that in this case the patient was 63 years old and very fat. The diagnosis of cancer was confirmed. The patient lived three weeks after the operation. There was no doubt some poison was absorbed from the cancerous mass despite the daily washings. The case showed that the cancer extended from the fixation at the posterior abdominal walls over to the liver. In another case Dr. Branham opened the abdomen, found a cancerous mass freely movable, excess of hydrochloric acid being present, bacillus present, pylorectomy was done and case recovered.

Dr. Smith said in closing that the Boas Oppelar bacillus he felt inclined to believe a product of lactic acid. He noticed it frequently in cases of stomachic cancer. The normal stomach should show 2-10% of lactic one hour after eating a test meal, which consists of a stale roll and 12 ounces of liquid. The tests under microscopic revelation will augment this argument. This is invaluable from a standpoint of disagnosis.

Dr. David Street read a paper on Medicinal Treatment for the removal of Gall Stones. He referred to Morphia as a valuable agent to relieve the pain and facillitate the passage of the stone by removing muscular spasm. Also chloroform, hot baths, podophyllum the sodium salts, olive oil and glycerine, plenty of good drinking water and alkaline waters. He described the three day form of treatment, which was to have the patient the first day on phos. soda, the second day on sulph. of soda, and on the third on carlsbad salt. Keep the first day's treatment up until the patient becomes tired of it, then use the second and third, and eventually resort to the first. The bowels should be kept freely open. After giving salts sand is frequently seen in the excretions. This renders us unable to determine whether the stones were broken in their transit or whether they were dissolved by the phosphate of soda.

Dr. C. Urban Smith said, the etitology of gall stones is interesting and the theory is gaining ground that it is of bacterial origin. The bacteria gaining access into the bile produce chemical changes. There are many cases of gall stone passed in hurried diagnosis, as indigestion, gastralgia, etc., but all these cases should be treated medicinally before we resort to the knife.

Dr. Jas. A. Zepp: Has had no experience in the use of hot baths in hepatic colic, but did in renal colic, and thinks they should be equally effective in hepatic cases. In his own person it has afforded him aid in relieving renal colic.

Dr. R. Percy Smith related a case treated with Dr. Streett's idea which was successful. Used effervescing salts of phosphate of soda. Under this treatment the intervals between attacks were lengthened.

Dr. Geo. B. Reynolds mentioned succinate of iron in 15 grs. doses as a preventative of the attacks recurring.

Dr. C. G. Hill: Billiary cholic is com-

mon in melancholia, it is due to the cholesterine in the blood of the patients. Glychocolate and of bile taurorochocolate of sodium remove this. Nothing stimulates the flow of bile except the bile salts themselves. Glychocolate of sodium (Hynson and Wescott) in 5 grs. doses he prescribes in these case.

Dr. E. L. Whitney said: A number of these cases give no definite history, and related a case that improved on glychocolate of soda.

Dr. Richardson spoke of the solubility of gall stones in bile salts out of the body, he thinks Fel Bovis the only chologogue.

Dr. Streett: Many attacks are of irregular character. Pain is often present in unlooked for regions. He has poor results from the commercial chocolate of soda. He obtained best results from phos. of soda. This probably acts by depleting the ducts. He knew of nothing practical about the dissolving of gall-stones. Does get satisfactory results from sweet oil.

Dr. John D. Blake nominated for membership Dr. Edward Grempler. The Chairman of the Executive Commitfee induced the members to have others attend our meetings.

Eugene Lee Crutchfield, Sec'y.
1232 E. Preston St., Baltimore, Md.

Bleed, blister, purge, sweat and poultice was once the treatment for pneumonia, pleurisy, bronchitis and many other acute febrile diseases. The chief end sought with these measures was to relieve the overworked heart and the engorged, affected organs and tissues. The principle was good and has never been improved upon, but these measures are primitive and heroic, extreme and severe, and have rightfully been almost relegated to the age in which they were born.

We can relieve the heart and engorged tissues in deep-seated organs just as effectively and without pain or inconvenience yet without debilitating the afflicted, by the intelligent and liberal use of Antiphlogistine in indicated cases—pneumonia, pleurisy, bronchitis or wherever there is engorgement of tissues. Applied warm and thick—the thicker the better—it at once begins to operate through reflex action and through dialysis and the patient is bled into his own superficial capillaries, which process goes on quietly and painlessly, while simultaneously the patient is cognizant of instant and continous relief and feels its soothing effects while he is gently wooed into a peaceful, restful sleep, the need of which is of such vital importance in these diseases which too often result fatally,

Hysterical Mastoiditis.

Attention has been recently drawn to the fact that in a certain number of patients complaining of intensely painful mastoiditis careful examination has failed to disclose the slightest organic lesion. It has been noted that the pain in these instances always appeared suddenly and was acute from the first, being disturbed over the entire mastoid region with no espially sensitive points. The absence of fever and prostration may be looked upon as a sign pointing to the possibility of the hysterical nature of the affection, and in one patient the true nature of the condition was diagnosed by the sudden transference of the pain to the opposite mastoid region. The advisability therefore, of entertaining the suggestion of an obscure manifestation of hysteria should be borne in mind when intense pain in the mastoid region of an indeterminate and indefinite character is complained of in a subject known to suffer hysteria with or without some slight ailment of the ear.—*Medical Press and Circular.*

An Index of Diseases with Their Modern Treatment.*

Anorexia (loss of appetite.)—Is a symptom accompanying most of the acute and many of the chronic diseases. In many instances it depends simply on a local disturbance: catarrh, ulcer or cancer of the stomach. It is, therefore, not always advisable to restore the appetite nntil the stomach is in a condition to perform its mechanical and chemical duties. Here the sound judgment of the physician is often put on trial. If constitutional disturhances cause a loss of apetite, the system should be strengthened by general and proper tonics; exercise, scientific massage or gymnastics are advised and patient should be placed under the very best hygienic conditions.

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The matter of diet is occupying the minds of the Medical Professien more to-day than ever. The question is: what diet to prescribe. What every invalid, no matter what the disease, requires is nourishment that is highly assimilable, digestible and nutritious, besides necessitating as little bulk as passible,

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Unnsual Case of Appendicitis.

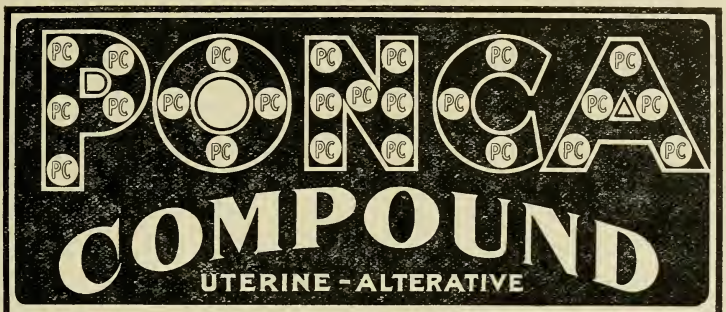
Arbuthnot Lane (Medical Press and Circular, Dec. 11, 1901, of Guys Hospital, London) operated on a woman, æt. 30, who for many years had suffered from recurrent attacks of what appeared to be ob strution of the colon in the situation of the hepatic flexure. This was associated with a considerable amount of disturbance of the pelvic organs, and with some evidence of recurrent trouble of the appendix. The whole length of the ascending colon was freely exposed, when the hepatic flexure was found to be tied down by abundant adhesions extending inwards from the abdominal wall external to it—a condition to which Mr. Lane said he first called attention in a lecture on movable kidney, published in the Clinical Journal of this year. These bands were freely divided, and the heptic flexure was completely liberated from the position in which it had been retained by them. A similar plane of peritoneal adhesions was removed along the whole length of the cæcum on its outer aspect. The appendix was then found to be fixed deeply in the true pelvis, its extremity being attached to the outer limit of the Fallopian tube whose orifice it had occluded; the tube being considerably distended, so as to form a hydro-salpinx. The distended tube was removed from the ovary when the appendix was freed from its attachments and excised, the stump of the appendix being buried by a pursestring suture. Mr. Lane pointed out that the chief symptom from which the patient had suffered was not the primary trouble in the appendix, nor that set up in the Fallopian tube, but the obstruction in the situation of the hepatic flexure produced in consequence of very extreme constipation lasting over a period of many years. This condition had been described, he said, in the lecture he had before referred to, and was one of very considerable importance because of its frequency. Disappointment frequently ensued, he remarked, when, after operations for the removal of the appendix, the patient continues to complain of recurrent attaks of the pain and tenderness in the cæcal region produced by distension of this portion of the gut, which is consequent upon an obstruction of the heptic flexure; this obstruction is produced by the contraction of an acquired mesentery or a band of adhesions which may have resulted simply and wholly from chronic constipation, or as a part of a general tuberculous peritonitis, or of a peritonitis produced by inflammation in and about the appendix; therefore the surgeon should explore this region thoroughly when there is any suspicion of interference with the lumen of the flexure and not rest satisfied with excising an appendix, the inflamed condition of which may merely be produced by the constipation, which is the common factor in the development of both.

The patient, ten days after operation, is in a very satisfactory condition.

Substitution Extraordinary,

Substitution as generally understood is one of the abominable evils against which physicians have to be on their guard. The only way to get rid of this evil is for a physician to insist on having his prescriptions filled by a reliable druggest, and then watch this druggest occasionally to see that he does not fall from grace. The reputation of the physician, the health, and sometimes life, of patients depend on the correct filling of prescriptions. While we believe that very few druggists are guilty of substitution, some of them are. We refer now to the substitution of "something just as good" for a similar preparation and which the druggist may believe will answer the purpose, especially if it is cheaper. But the druggist who places his "beleif" above the written instructions of the physician will be dishonest in other ways and should be treated accordingly. Our attention, however, has been called to another form of substitution that is more dangerous, more vicious, and more criminal than that referred to above, and one that is more difficult to gaurd against. We have recieved a circular letter from the Farbenfabrken of Elberfeld Company, in which they record their experience in ferreting out a despicable adulteration of their products. The facts in the case were brought out in a lawsuit and revealed that certain men were actively engaged in counterfeiting labels and boxes and filling them with all sorts of material utterly unlike the genuine and then selling them to the druggists as the real article. While we believe that this form of adulteration is unique to this particular instance, it is well that we recognize the possibility of such an occurrence in the future. It is further quite probable that this form of fraud would be worked only on unscroupulous druggists who desire to buy the cheapest without regard to quality.—*Journal of the American Medical Association, January 4, 1902.*

Dr. J. H. Goss, of Athens, Ga., has been appointed, by Gov. A. W. Candlera, member of Board of State Medical Examiners of the State of Georgia.



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A Case of Chronic Bronchitis of an Arthritis Diathesis.

In chronic bronchitis we have two varieties, viz :—the primary and secondary. It is of the secondary chronic bronchitis I wish to refer. This is frequent in elderly persons especially males, due chiefly to gouty, rheumatic, syphilitic, cardiac, renal or pulmonary diseases.

In these cases, the mucous membrane of the bronchial tube is discolored, being of a more or less dull red hue, often mingled with a grayish or brownish color. The mucous membrane is thickened, resulting in contraction of the calibre of the tube and a roughening of its internal surface.

In the dry variety, the "catarrh sec" of Laennec, or dry bronchial irritation, the secretion is scanty, tough, semi-transparent and occurs in defined globular masses.

This chronic catarrh is characterized by a harsh cough, a feeling of soreness or rawness under the expectoration of small globular masses. Dyspnoea is a marked symptom, especially on the least exertion.

I have referred to the pathology and symptomology in and extremely brief way, the conditions being so common, as to be one familiar to the practitioner. The great trouble is that in this chronic secondary variety, we often treat the bronchitis, and entirely forget the condition to which the bronchitis is subservient.

A number of cases of chronic bronchitis are due to a rheumatic or gouty diathesis and while I have not omitted to follow the classical treatment of bronchitis in the following case and not the primary condition, but it was only after I had exhausted all other means to give the patient relief that I resorted to th e use of capsules of colchi-sal (colchicine methyl salicylate) and the external application of betul-ol (compound methyl-oleo- salicylate).

J. F. B., aet 54, had suffered for years with chronic bronchitis and catarrh. Internal and local remedies failed signally to give permanent relief and I prescribed

℞ Colchi-Sal Capsules No. C.
Sig.—One capsule every four hours.

and externally

℞ Betul-ol ʒij.
Sig.—After washing neck and warm water, apply locally at night and cover with wonlen cloth.

My patient's condition was such as to cause him the greatest inconvenience. The dyspnoea was so severe that he could neither walk fast, or go up or down stairs without considerable suffering. The rheumatic condition was never extremely marked, although at times he suffered from muscular rheumatism in the limbs. A few small gouty nodules on the joints of the fingers.

After one week, he informed me that the cough had almost entirely stopped, the dyspnoea had ceased, and as he expressed it "why did you not prescribe this long ago." I have since this time used these agents frequently in similar cases with the same gratifying results.

The success of colchi-sal in all forms of the gouty and rheumatic diatheses, and the greater cheapness of substitutes for this preparation (which are made with artificial wintergreen or salicylate of methyl colored green to look like the original preparation), make it important to recommend prescriptions being filled by responsible pharmacists, for whenever I have failed to get results in gouty and rneumatic manifestations, I have always been able to trace it to this source.

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Antikamnia and Heroin Tablets in Prevalent Grippal Conditions.

Thos. G. Rainey, M.D., L.R.C.P., Resident Physician, British Medical Institute, Atlanta, Ga., in a recent article states that the comparatively new combination of drugs, antikamnta and heroin tablets, which has been so largely used for the control of cough, is also being successfully employed, to a large extent, iu the treatment of nearly all affections of the respiratory tract which are accompanied by dyspnœa and spasm, namely: Asthma, Bronchitis, Laryngitis, Pneumonia, phthisis, Whooping Cough, Hay Fever, La Grippe, etc. In in cases in which the patients were suffering from the severe attendant pain of these diseases, it found that this combination acted mose satisfactorily. Each tablet contains five grains of antikamnia and one-twelfth grain heroin hyerochloride. One tablet was followed by a rapid diminution of pain, and after the third tablet the pain entirely disappeared. In treating the affections enumerated above, the dose is one tablet every two, three or four hours according to indication.

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The Board of Health of Pattsville has ordered all women to wear shord dresses in order to avoid gathering disease germs in the street and carrying them to their homes.

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Modern Treatment of Infected Wounds.

Dr. Heinrich Mohr, of Bielefeld, Germany, in a paper entitled "Modern Treatment of Infected Wounds," published in Die Medicinische Woche, Berlin, June 10th, and 17th, 1901, says that he has treated a large number of wounds of the most varying nature that were supposed to be infected, or showed distinct signs therefore, with Glutol. In fresh and presumably infected wounds infection did not appear, even without other disinfectant measures; and the strikingly fresh, soft appearance of the edges of the wound or the flaps, and the absence of all irritation, were remarkable. Other measures, such as the use of mercurials, will prevent infection; but the irritation of the wound and its neighborhood is marked. Some ointments render the wound torpid and sluggish. The wounds treated with Glutol, on the other hand, are characterized by healthy granulations. The result obtained favor Schleich's assumption that Glutol has a lasting antiseptic effect, without injuring the activity of the cell, or interfering with the normal process of healing.

As an example Mohr instances the case of a knife-cut of the palm, which came to him bound up in a dirty rag four hours after the injury. He simply disinfected the surrounding surface, and filled the wound up with Glutol. On changing the dressing after four days there was no trace of infection; the wound was fresh, the fissure was filled up with blood coagulum, due to oozing after the first dressing, and with no trace of decomposition. Though the most favorable conditions for the development of bacteria existed, the disinfecting properties of the Glutol had sufficed to effect perfect asepsis.

In supperating wounds more especially, the growth of fresh granulations is preceded by a stage in which the dry surface is covered with a yellowish-grey, fibrin-like coating of dessolved Glutol, looking very much like an infection; but the general good health the non-reaction of the surrounding parts, and the absence of other symptoms prevent mistake.

In ulcerations Mohr also obtained rapid disinfection. A torpid ulcer of the leg in a diabetic was thoroughly cleansed and treated with Glutol; it soon looked better, had softer edges, and showed incipient epidermis formation; and in a few day it was thoroughly healed.

In deeper wounds suppuration ceased rapidly in most cases, the secretion became serous, the wound dry; then appeared the above mentioned coating, and ultimately fresh granulations sprang up. Thus after extirpation of tubercular and suppurating lymphatic glands there was only a slight serous secretion on the third day; three days thereafter the cavity was dry, and fresh granulations had appeared on the dull coating in places.

The Value of the Excision of the Superior Cervical Sympathetic Ganglion in Glaucoma.

G. F. Suker (Journal of the American Medical Association, Dec. 14, 1901) concludes an article as follows: 1. Sympathectomy is a justifiable operation. 2. Though the excised ganglion shows changes, yet the true relationship between the glaucoma is an open question. 3, It is not the sine ona non, but a most valuable adjunctive procedure. 4. It is always indicated when an irridectomy or sclerectomy in any form of glaucoma has failed. 5. Irridectomy is still the classical treatment for certain forms of glaucoma, i.e. chronic and acute. 6. It is the preferable procedure in glaucoma and hemorhagicum. 7. Operate only on one side—affected side. 8. Employ the suitable medicinal treatment after the operation. 9. Do not extirpate the ganglion in acute inflammatory forms of glaucoma. 10. There probably is a close connection between the ciliary, superior cervical sympathetic, and glaucoma. What it is, experiments will show. 11. Extirpation of the gangloin is indicated whenever there is increased tension not controlled by any other measure. 12. The results depende in a great measure ugon the condition of the case. 13. Primary extirpation may have to be followed by an iridectomy. 14. It is indicated in those cases of glaucoma which already have extremely poor vision and where any interference with the eye proper might result unfavorably. 15. It is to be considered at all times when other operative measures are refused, irrespective of the form of glycoma. 16. The excision of this ganglion has varying effects upon the fundus oculi—none detrimental, however.

The Southern Surgscal and Gynecological Association, at their meeting in November at Richmond, elected the following officers for the coming year; President, Dr. W. E. B. Davis, of Birmingham, Ala.; 1. Vice President, Dr. J. Wesley Bovee, Washington; 2. Vice President, Dr. John W. Long, Salisbury, N.C.; Secretary, Dr. W. D. Haggard, Nashville Tenn.; Treasurer, Dr. F. W. McRae, Atlanta. The next meeting will be held in Cincinnati. Dr. T. A. Reamy was appointed Chairman of the Committee on Arrangements.

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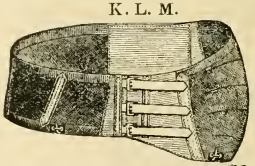

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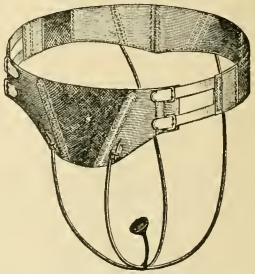

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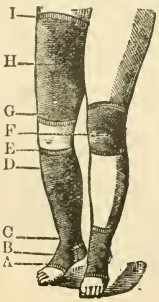

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The Treatment of Nasal Catarrh.

Mannon (Cincinnati Lancet-Clinic) finds no danger whatever from the use of the nasal douche provided ordinary care is taken and a proper solution is employed. The charge that post-nasal douching is prone to excite inflammatiom of the middle ear he does not find sustained. All leading specialists employ this method of treatment in the posterior as well as the anterior nares with equally good results. The doctor has had chronic nasal catarrh of many months duration yield to douching when heroically employed. Listerine to which a small quantity of bicarbonate of soda has been added is his main stand by. If hemorrhage is a controlling feature he uses instead a saturated solution of tannic acid to each ounce of which ten grains of carbolic acid has been added. When the tendency to bleed ceases he returns to the listerine solution. Treated in this way the most pronounced cases yield in three or four weeks and are not prolonged by complications or sequelæ.

The American Electro-Therapeutic Association will hold their Twelfth Annual Meeting, at the Katerskill, Catskill Mountains. N. Y., on Tuesday, Wednesday and Thursday, September 2d, 3d and 4th 1902.

Officers are:

President, Dr. Fred H. Morse, Melrose, Mass., Secretary, Dr. George E. Bill, Harrisburg, Pa., Treasure, Dr. R. J. Nunn, Savannah, Ga.

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The Charlotte Medical Journal.

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Diseases of the Ovaries.*

By W Gill Wylie, M.D., New York.

This subject of disease of the ovaries is one that has been forward in all discussions on gynæcology for many years, especially the last twenty years. Twenty years ago almost all reflex troubles from which woman suffered were considered ovarian diseases and the subject was made, very properly, a surgical one; first, on account of Dr. Batty taking up the idea that if a young woman had dysmenorrhœa a great deal, the best thing to do was to perform ovariotomy with a view to stopping menstruation. That operation was attempted by a number of surgeons, at that time, and very fortunately there were many fatal cases. It was first attempted through the vagina and afterwards the abdomen.

At that time little or nothing was known of the study of disease of the fallopian tubes and the relation of disease of the fallopian tubes to disease of the ovaries. The idea was that if a young girl showed signs of mental disturbance believed to be due to the generative organs, it was deemed sufficient reason to take out the ovaries.

As I said before, the operation at that time was more or less fatal, and fortunately so because the operation was wrong in every sense of the word. Take it now and do it in the most ideal way—take a young girl with an imperfectly developed uterus having associated reflex disturbances; take away her ovaries and you do her more harm than good.

Now I believe in conservative surgery, that is, in saving any organ that can be of any service to the patient, especially in young women, even if it is only to prevent them from having sentimental ideas that the removal of the generative organs makes them different from the rest of womankind. In many cases it is perfectly practicable, where one side is diseased, to take out that side and save the other. In a great many cases it is perfectly practicable to cure any disease of the uterus and even where the tubes are almost completely destroyed to remove part of that tube and ovary and leave part of that tube and ovary, In other words, to leave enough of the ovary and fallopian tube so that the woman will menstruate. In every young woman this is of vast importance, I think, not merely so as to affect them mentally, but because in many of these cases, especially where there is imperfect development, if you take out the tubes and ovaries and leave the uterus, the woman does not menstruate and there is atrophy and the organs become necrotic. It is a serous matter for you to take out the tubes, ovaries and uterus in every young woman before they are fully developed. The vagina and other organs that are left undergo in many cases an atrophy and shrinking and become hyperæsthetic, so much so that if the woman is a married woman, intercourse is impossible for a time, although by treatment and gradual stretching this can be greatly modified and corrected. In some cases it is extreme. In every case where it is possible to save a portion of the fallopian tube, ovary and uterus, so that the woman can menstruate, I do it. I have experienced a great deal where the cervical portion of the uterus was normal and left the lower half of the uterus, and I am satisfied that you can get better results and there is less of atrophy in these cases; but I am very careful, because the stump left is very likely to be degenerated and if there is a tendency to cancer there is no doubt but that it becomes a good nidus for cancerous development. In any case, try to save as much of the tubes and ovaries as possible so that the woman can menstruate if she is under forty.

This question of atrophy is a serious one in these cases. I mean that if we take a young girl, remove the tubes, ovaries and uterus, I have no doubt but that it will work a complete change in her nature. Some of these bad effects are often held up to women by those who do not operate in every case. Women have come to me who have been told that if the tubes and ovaries were removed that they would be unsexed and many other foolish ideas. Some have an idea that whiskers will grow on the face. There is no doubt but that if the tubes and ovaries are removed some change will take place, but when once fully deve-

*A Clinical Lecture Delivered at the Polyclinic Hospital. New York.

loped the effect would be very slight. The organs will not interfere at all with the ordinary life and the woman can be kept in almost perfect health.

I think that the question of young women has not been considered carefully enough by the profession. I firmly believe in saving these organs as much as possible, but I must say that all attempts to carry this conservative work to an extreme degree often give rise to bad results. Thus, if you leave the diseased tube and ovary or a portion of it,you are very apt to have extensive lesions and troublesome symptoms. If you take out the tubes and ovaries complete and leave the uterus, you make a serious and grave mistake, because in the great majority of cases it is always diseased and causes trouble.

I am certain that so far as producing reflex excitement, producing what we call hysteria and melancholia, that the condition of the uterus has more to do with that than the condition of the ovaries. In other words, a hyperæsthetic uterus will cause dysmenorrhœa when ovarian disease does not. It will cause reflex disturbance in the majority of cases. Then again, if you take a later period of life, any condition of enlargement of the uterus, if the woman carries it many months, does just as sure as fate upset her nervous system, and if there is any tendency to melancholia it will show. Some of the most marked cases of melancholia I have ever seen have been associated with an enlarged uterus, I mean a subinvoluted uterus more or less diseased. After an operation or after labor there is a form of endometritis and this enlargement takes place from the changes in the uterine tissue. This condition even in well balanced, strong women, will produce depression which cannot be cured unless the local condition is changed. In fact, in many of them, if the uterus is cured up, reduced to its normal size, the symptoms disappear. If the symptoms return, a hysterectomy cures these cases. I do not mean that you can take a woman who had melancholia associated with enlarged and diseased uterus and that upon curing the local disease you can prevent that woman from ever again having melancholia, but you will remove the exciting cause at least. I have tested this in hundreds of cases. I have even taken women out of an insane asylum after having been incarcerated for four years, examined the uterus, restored that uterus to its normal size and condition and the patients' melancholia disappeared. If it is due to fibroid changes in the uterine tissue, accompanied by a form of endometritis, you can cure it only by hysterectomy. You do a hysterectomy and you cure your patients and they remain cured—many of them completely. I have had cases where I have followed them up and predicted that the presence of small fibroids after the uterus has been reduced in size would cause no further trouble.

I will tell you of a typical case. A young woman had been treated in Georgia for different forms of neurasthenia for four years. She had had three children. About four or five months after the birth of the first child she had some symptoms of melancholia, but they disappeared. Several members of the family had become insane, so that there was a tendency to mental trouble. She had gone about being treated by bromides and other medicines for this so-called nervous prostration. She went to Dr. Batty and he put her through the water cure treatment for several weeks. The melancholia was so marked that she declared she preferred to die. She had taken a violent dislike to her husband and cared nothing for her children. It was, in fact, a typical case of melancholia. The woman was brought to me and I asked her if she had been examined since the birth of her last child. She said she had not. I then told her people that if I found an enlarged uterus I could relieve her melancholia. I examined her and found a large tumor in her uterus about the size and shape of a normal kidney. The uterus, well back, was soft and enlarged. I sent her back to Dr. Batty. He said the tumor was small and could be taken out from below but that he would object to operation upon this patient —that operation would be followed by dementia. This idea, of course, is false. I do not say but what some cases would not crop out in operation, but I think that when this had occurred it was when it was customary to remove the tubes and ovaries and leave the diseased uterus. This undoubtedly would excite and throw out of balance any woman who had a feeble mental balance. This patient returned to me and I called in Dr. Sachs who was satisfied that it was a typical case of melancholia and that the operation was justifiable and he would like to see it done.

I opened the belly and took out the tumor, which was rolled up in the lower end of the omentum and acted as a big heavy ball on the tip of the uterus forcing it back and keeping it so. She made a perfect recovery. I then curetted the uterus and treated it with boro-glyceride and in ten days she was better. In four or five weeks she was a perfect well woman. She went home and remained perfect well for two years,

at the end of that time the symptoms returned.

A woman of thirty years who has one fibroid will be sure to have another sooner or later in almost all instances.

In fibroid tumors I also believe in conservative surgery. If it is possible you can curette the uterus or remove the granulations by treatment. You can get that mucous membrane in good condition, and the woman can be gotten in good condition to become pregnant, knowing that if she will become pregnant it is possible for her to have a child. In others I have curetted not taking the fibroid out at all. I believe that myomectomy is a difficult operation and a very dangerous one; having no drainage you are almost certain to have death follow. In other words, to open the belly is a more dangerous operation, even in the hands of an expert, than hysterectomy, therefore, I do not recommend myomectomy except where a woman can have babies, and where there are one, two or three fibroids; but to open a woman and take out six, eight, or fourteen or fifteen fibroids and put back that hashed up uterus into the pelvis, I would not do it because I do not believe any good results can be obtained by such a proceeding.

I think one of the principal objections to the strong advocacy of so-called conservative operations—because it must be taken for granted that every doctor wishes to do the right thing—that he does not simply grab hold of a woman just for the pleasure of doing the operation—but that he operates in the safest way so as to prevent death; next to get the best results, not only so the patient can have a child, but for the comfort and happiness of her whole life. I believe most men do operations with this idea, but they can be mistaken, and this idea can be carried too far. I am satisfied that many ovaries have been removed that were without functional and organic disease.

I saw a case the other day that was operated on in this building, where I know a mistake has been made, yet the men were conscientious. There is a young girl with a piece of the ovary and a part of the fallopian tube, and she still has a dysmenorrhœa, nervous disturbance, and except that she has less pain she is not one whit better than before.

I claim that unless there is an active salpingitis or ovaritis of some growth, or other diseased condition of the uterus he should hesitate before opening the belly. If you take one hundred young women who have more or less imperfectly developed uteri, you could not expect the function of the ovary to be normal. All these young women have irregular and abnormal ovulation. And instead of going on to normal development there is an abortion, and there will be a sensitiveness for weeks. There will be cysts which are most likely to form on the left side, because the circulation of the left ovary is more or less impeded, the blood not being carried off so promptly. You can locate these cysts by examination, and the patient will have a severe pain. To claim that when you find a cyst of that size, and the woman has an imperfectly developed uterus, because there are a few adhesions, to leave these cysts may be conservative surgery, but it is bad work. Hundreds of these so-called conservative operations are done in just such cases. You take a case of this kind; if that case had been in my hands, the first thing I would have done would be to improve that patient's general condition, regulate the bowels; then if that did not work right I would put the woman under ether, examine her, and if the uterus was imperfectly developed then I would dilate and curette and put in a drainage tube; if that failed I would wait six months and put it in again. I would rather take all that trouble, and that young woman would be relieved of the dysmenorrhœa nine times out of twenty. The ovaries would develop and their power be restored. If she would get married she would become pregnant.

I have always, I confess, a certain prejudice against conservatism in medicine because it has been used as a miserable cloak to decoy others. In fact, I have always taken the ground that in science there is only one right way and the aim is to be scientific. Because one man operates on cases that you do not operate is no reason to say that he is a duffer. I am satisfied that there are hundreds of women who have lost their tubes and ovaries that should not have done so.

I will give you an illustration of some of the young women who have come to my hospital from a country town, sent by some young doctor who has thought that abdominal operations were not dangerous. He had probably been here and taken six weeks' instruction and then gone home and operated. I had a case from North Carolina where the woman had been married two or three years without children. She had great dysmenorrhœa and a great deal of local trouble. I dilated and curetted and fixed her up generally. She had some cysts, but I paid no attention to these cysts. Unless there is a salpingitis or a sarcoma you can put in a drainage tube and wait. I cured this woman, she went South. She

had a sister who had just married; her husband was a druggist. Now, she had some little disturbance, but very little—only a troublesome leucorrhoea. She had no pain in walking. She thought that if her sister was cured by treatment she would like to try it too. She thought of coming to me, but the druggist had an old collegemate who was a doctor in a town not far from this city, and he used part of his house as a private hospital. He was operating very freely. This young woman went to him accompanied by her mother and her husband. The doctor examined her and said that she had trouble and he would operate. He removed the tubes and ovaries and then went out and told her sister that she had diseased tubes and ovaries,and that the fallopian tubes were the smallest he had ever seen. That young woman had nothing whatever the matter with her except that the uterus was imperfectly developed, and having married young she was probably developing all right. She thought that leucorrhoea indicated disease. Within a year that young girl was a nervous wreck. Her only hope of getting relief is to have that uterus removed, and then what is her condition? The vagina and parts will shrink and atrophy, so that she cannot have intercourse with her husband unless she is treated with the greatest care. Many ovaries are removed which are not diseased but only imperfectly developed. Eighteen or twenty years ago all of us operated upon cases that had been better let alone. But as long as fourteen years ago I refused to take out the tubes and ovaries in a woman for nervous reflex symptoms; and that catarrhal condition of the tubes and ovaries followed with small cysts did not justify operation, and I have been preaching that doctrine ever since. And you will find in looking back over the operations in the past fifteen or sixteen years, there were many so-called catarrhal cases but no organic disease could be found, and I know that mistakes were made, but we ought not to make them now.

The tubes and ovaries of a woman under forty should not be removed unless there is organic disease, and even then, a portion of the ovary should be left so that woman can menstruate and prevent local atrophy and shrinking until she has reached the age of forty-five. I do not know that it is justified where there are cysts of both ovaries. It does not follow that when a woman has an ovarian tumor in one side we should take out the other. I think that covers my opinion of conservative surgery, but, unfortunately, in my first cases. I had to operate again and again, sometimes within a year or two. I have gone so far as this in one case about three years ago. A woman started to the city to see me, but when she got here some one took her to an eminent surgeon and advised her to go to him. He examined her and said "you have got some disease of the tubes and ovaries, but you have so many adhesions that an operation would be too dangerous." She said, "I will go to see Dr. Wylie." He dissuaded her from this and said he would send her to a conservative man who would dilate and curette. But she said that she had been curetted and fooled with long enough, and she came to me. She had been refused operation in every part of the city where she lived by two or three prominent men. The case was really one of gonorrheal infection. She came back and I opened the belly; she was such a young and handsome woman that I would have liked to have cured her without operation. There were very many adhesions, but I would like to see the case that I would decline operation on account of the adhesions. I removed the tubes and ovaries on one side and also the appendix which was diseased. I found that I could leave part of the ovary which was not diseased. This is characteristic of gonorrhoeal disease. It is much more likely to result in a salpingitis with a thin fluid than it is in a pyosalpinx. It is the repeated attacks which cause the dense adhesions. I left a portion of the tube near the uterus and the right ovary, removing the other. She made a perfectly good recovery with no bad symptoms at all, except that there was pain in the right side. It continued, and we tried all kinds of treatment, the uterus was put in the normal condition as nearly as possible and she went to the Adirondacks and did every thing for her health, but all the time there was pain and trouble. Two years afterward I removed the other ovary. Since then she has had perfectly good health.

I do not think, in a woman over forty, conservative operations are safe. If you operate on a woman over forty, the best is a hysterectomy. I rarely leave the cervix now.

I do not say that fibroids induce cancer, but unquestionably the normal condition of the tissues that comes after forty-five,which is associated with fibroid tumors, certainly makes a good nidus for the disease we call cancer. Sometimes cancer will appear right in the very center of the fibroid tumor itself, so that I claim that the best operation after forty, is a complete hysterectomy, then the atrophy and shrinking changes are not nearly so troublesome.

I want to impress upon you not to go

home and remove so-called cystic ovaries, because a young woman has enlarged ovaries. Wait a few weeks or a month or two; of course, if it is associated with septic fever you are justified in opening and operating. In many of these cases there is no fibroid. Often, unless the tumors are very large you are not justified in opening the belly. If you cure the local condition of the woman she will get well and remain well, and that is the class of cases where so much harm has been done by the men who believe in conservative operations. Many a man has commenced to operate upon a woman and finding these dense adhesions, he is afraid to go on, and sew up the belly. This is conservative surgery, but damned poor work. I claim that a man who cannot deal with adhesions ought not to open the belly alone, he ought to have someone to take his place if he is going to do that kind of work. In fact, I know one eminent man, (I won't mention his name), he did not operate on cases that needed operation, but operated on those that did not. If he found a pyosalpinx he would tell the woman he was conscientious and did not remove it. If she would say that she would go to New York and have it done, he would tell her to go to New York, that they would operate there, but that he was conscientious.

Again, I have had cases where there was disease of one ovary and the physician had removed the ovary on the other hand, saying the diseased ovary had absorbed. Now, I have the pleasure of opening that belly and taking out that ovary. I had one young woman who was a most interesting case. She came to me with this history: she was not married until she was quite an old maid. Soon after marriage she developed a violent local peritonitis. She was seen by comparatively a young doctor who was supposed to be all right. He opened this woman and found a large pelvic abscess on the right side. He opened that abscess, but he did not dare go on and remove the sac. The experienced expert can do it in every case; not only clean out the pus, but dissect the sac of the abscess. If the abscess has been there a long time you must get out the sac and also the tube and ovaries. In working with this case he made an opening in the intestine. He put in drainage and stopped the operation. The woman did not die. Every month or two she was laid up. She went back again, but he claimed he could do nothing for her. She went to this very same clinic where I had seen so many cases after being there with one ovary removed or the abdomen opened and shut up again on account of adhesions. This time the doctor claimed that the right ovary had disappeared, so he took out the other one. She went on menstrating and the same condition continued. She looked as though she had consumption. She came to me after she had been going on for six months or so. I examined her and found the thickened mass on the right side just where you would expect the remainder of the diseased tube and ovaries to be. Appearently, there was nothing on the left side but some adhesions. I put her under ether and on examination I found that she had an old chronic abscess that emptied into the intestine.

I have seen cases that I have watched for ten years. This case was a typical one. I put her under ether. My aim was to get counter-drainage, bend the uterus down to the vagina. I opened through there with a sharp-nosed forcep, and went up. I found pus and a hard indurated mass, and I kept in drainage for several weeks. She got better and better, and now she is perfectly well, except for adhesions. She has gained twenty pounds. What I did was to give counter-drainage to that old abscess.

Some Amusing Instances of Nasal Reflex.

By Arthur G. Hobbs, M. D.,
Ophthalmic and Aural Surgeon to the Presbyterian Hospital, Atlanta, Ga.

It was not without some misgivings that I have thus christened this little paper, because some might regard it as a too flippant manner of approaching so scientific a subject as nerve reflexes,a subject fraught with such subtilties and yet so suggestive of unknown quantities. Also because there may be others who can never look upon nature's phenomena as amusing, however vagarous and unexpected they may at first appear.

While these instances of nerve reflex manifestations that I have dared call amusing are no more wonderful than many others somewhat similar, but more familiar to us by reason of their frequent occurrence, nevertheless for this very reason together with the particular organs involved, many of us cannot avoid seeing the ludicrous side however easy the scientific explanations by analogy may seem. Familiarity with frequent occurrences of nature's perversions

†Read before the Staff of the Presbyterian Hospital, January, 1902.

does not breed contempt, but it does dull the sense of the ludicrous. Still I have a feeling, even now, that I should have said: "*Some Interesting Instances of Nasal Reflex.*" If they are not amusing. I can hope that they may be at least in some degree, interesting.

I had never seen but one case of priapism, and that was during my term in the New York Hospital, until by accident the second case came under my observation in 1888. A young bank cashier was driven from his rooms to my office in a closed cab, wearing an overcoat on an August day. He had been confined to his room more than two days with a painful attack of priapism for which he said he had run the gauntlet of all treatment, from hot and cold water locally to salines, opium and apomorphia internally, without any effect. He looked haggard and pale, and in many ways the results of his great suffering was plainly shown. The object of his visit to me was to be relieved of an acute rhinitis, accompanied with an almost complete nasal stenosis. I sprayed the nose slowly, but persistently, with a solution of cocaine in alboline until the engorged turbinal tissues relaxed sufficiently, within about ten minutes, to allow a comparitively free passage of the spray through both nares. About this time, with an expression of great joy, the young man exclaimed: "Doctor, not only is my nose free and I am relieved there; but see! it has all gone down, and I am perfectly easy." Hiscocaine exhilaration was scarcely perceptible, and indeed I would not have recognized any, but for my anticipation that there might be some. As the nasal turgescence disappeared so did a complete relaxation in the principal organ of erectile tissus follow.

How singular it was that a second case of priapism should have followed in the latter part of the same year; and yet in the eight years that have since passed I have not seen nor known of another case. This second case, a young man, aged twenty-two, was in many respects similar to the first, except that he had suffered only intermittently, but during a longer period—5 days. And yet his relief lasted only during a decided opium narcosis, and pain gradually returned when the effect of the narcotic began to decline. His exposure to frequent applications of hot and cold water had probably caused the acute aural catarrh, with a moist and stuffy nose, notwithstanding the large amount of opium he had taken. The subjective symptoms of pain and tinnitus, together with the visibly contracted drum membrane, suggested a nasal spraying, with the same solution as in the first case, before inflating. This young man had come to me for his nasal troubles and I was not aware of his priapism until I had relieved it indirectly. His exclamation of delight was as prompt and no less decided than the bank cashier's. I saw each of these cases several times during the succeeding two or three days. There was no intimation of a return of priapism in the first case, and in the second only in a slight degree twice.

I casually mentioned these two cases of priapism before the Atlanta Academy of Medicine in 1889 in a discussion on an alied subject, but do not remember that my remarks were published, at that time.

An unaccountable sneeze is produced in some people merely by an erotic thought when accompanied by the desire and the anticipation of it fruition. All whom I have questioned upon this point say that the sneezing reflex passes off long before the usual and more important erectile area has been stimulated to its full limit of distention.

I do not doubt, from the accidental way in which some ten or twelve instances have come to my personal knowledge, that many more men are endowed with this faculty than we know of. From the descriptions it is characteristic and quite unlike the sneeze that first announces a cold.

A gentleman once described his own case to me more grap hical than I can repeat it. While walking, he said, one evening arm in arm with a lady, his wife, who was but a short distance in the rear, was surprised to hear a succession of sneezes that she at first mistook for his characteristic sneeze, with which she thought she was quite familiar; but later on she was amused at her own mistake, and no doubt delighted, too, when she realized that what she had heard was only the ordinary commonplace bad cold sneeze (?) that any man migh unfortunately contract at the wrong time. A young man has confided to me that he was constantly mortified and placed at his wit's end in making excuses to his sweet-heart on account of his susceptibility, when with her, to drafts (?) that she could in no way discover.

Several men have, with my encouragement, finally acknowledged that this little telltale reflex had been their principal cause for consulting me. A prominent physician very graphically described his own experiences with these dual reflexes. It came to him so insidiously, he said, that he could scarcely realize it. Indeed, his wife had become quite familiar with the characteristics of his forerunner long before he would himself acknowledge it.

None of the ordinarily resorted to means can suppress this sneeze. It simply means to announce that "Barkis is willin'" or would like to be, at least, that such an idea exists in the brain of its victim whether or not it can be properly and effectually reflected.

In all of the cases without exception, it would appear that the effect on the sneezing area has come and gone before the mental reflex stimulus has had time to reach its usual result of erectile perfection.

A sneeze is one of the most typical examples of a nerve reflex, and while the neurologist can only construct a beautiful theory to explain its incentive and conductive factors, pathologist agree that the final result is brought about by the swelling of the erectile tissue covering the turbinal bones. The histological similarity between the turbinal tissues and the caverna cavernosa is quite sufficient to cause no sense of wonder or surprise why a mental impression that excites one should excite the other also, even within pathological bounds, although we are accustomed to regard the one as an entirely physiological function and the other as distinctively pathological.

The instances just cited prove, however, that it is only the turbinal tissue that possesses the dual capacity of responding to either a physiological or a pathological stimulus; also that its response to a mental stimulous always precedes the more important effect below and is lost before the distension of the caverna cavernosa is complete. It may be answered that a priapism is a pathological condition, yet its beginning is physiological.

Is it not fortunate, too, that every time we get our feet wet the reflex result on this lower and larger erectile area is not the same that is produced, so often, on the turbinal tissue by an over-stimulous from an external source?*

About 5 years after the publication of my first paper, in March of last year, the third case, again by accident, came under my observation. A young theological student consulted me for a severe nasal stenosis coincident with a painful otalgia, after having applied adrenaline to the much reddened drum membrane. I slowly introduced some of the same solution, with cocaine added, into the nose, both by spray and cotton probe. The patient's movements had already made me suspect the other complication, when he frankly told me of his great relief from a suffering that was to him both physical and moral. He had had priapism for 36 hours almost consonant with his nasal stenosis. His relief from his priapism was complete, although the stenosis recurred in a lessened degree for several days, when he recovered entirely from his ear and nasal complications. As I used both adrinaline and cocaine in this case and only cocaine in the first two, I cannot positively say that the adrinaline would have produced the same distal results, although I am positive that it would have alone accomplished the primary objects in my treatment even better than cocaine alone.

During the first three months after the publication of my first paper I received twelve letters from various parts of this country and three from abroad describing cases more or less apropos to this subject, all, however, dealing with the sneeze reflex and with no priapism complication. I am, therefore, led to believe that these three cases are unique.

It has not been my intention to treat this subject lightly. It is one too closely allied to one that men generally, I believe, do not disregard "with but a single thought." I would have you believe that I have not purposely dwelt on the flipppant side of this subject nor have I meant to make a flippant amusement of such a theme only as it necessarily follows as a pathological, or if you prefer, as a physiological corillary.

English American Bld'g.

*I have quoted freely in this paper from my first paper read in New Orleans before the American Rhinological, Laryngological and Otological Society in 1897.

A Case of Emergency Surgery in the Country*

By H. W. Lewis, M.D., Jackson, N. C.

On Saturday, April the 14, of the present year about four o'cloch in the afternoon, I was summoned to see a man who I was told had been cut. Upon questioning the messenger as to the character of the wounds, I was informed that the man was cut half in two and his intestines were all out of his body. Finding it impossible to secure the assistance, until late in the night of a brother physician, I asked my friend and neighbor, our Register of Deeds, who is not afraid of a little blood to ride with me and assist. I took with me instruments, including a fountain syringe with infusion tubes and needles, also a packet of sterilized dressings and towels. We found the patient alone in the kitchen of a negro cabin about a mile from the village of Jackson, N. C. He was lying upon an old bunk, covered with

†Read at the meeting of the Seaboard Medical Association of Va. and North Carolina, in Norfork, Va.. December. 16, 1901.

dirty quilts, his skin was cold, and bathed with perspiration, his pulse weak and thready, and he was suffering with nausea, he proved to be a negro about twenty-four years old, a lumberman, who had been caught in a very compromising position with the wife of another negro, who immediately proceeded to carve him with his razor. The cutting occurred about two hours before my arrival, in a pine thicket, about one mile from the house where I found the patient. To this house he made his way after being cut, over a rough uncultivated field, climbing two fences, and wading through a large branch, finally falling at the door steps, whence he was taken and laid in the kitchen. A hasty examination revealed a very large mass of intestines, protruding through a cut in a very dirty undershirt.

There was a cut on each forearm, near the elbow reaching well into the muscles. It was found later that there was also two incised wounds on his back, in the lumbar region. There was no active hemorrhage at this time, but there had evidently been profuse bleeding, as his clothing from his waist down, was saturated with blood. A hypodermic of strych, atropia and morphia was given at once, and as soon as possible he was infused, with nearly two pints of normal salt solution. Preparations were now made for operation. My instruments, including some intestinal needles and fine silk, were placed to boil in the kitchen pot, fortunately I had with me sterilized towels, gauze, and bandages. The kitchen table not being large enough, was reinforced by a smaller one, the legs of which were placed on bricks, to bring it up to the level of the larger one. It was then covered with on old quilt. My rubber buggy apron having been sponged with bichloride solution was laid on this, and guttered into a wash tub placed under the table. A wooden bread tray was scalded with boiling water, and covered with a sterilized towel for instruments. Two large pitchers were borrowed from a neighbor, cleaned with boiling water, and filled with hot saline solution. The fountain syringe was subjected to hot bichloride solution, and hung upon the wall about four feet above the level of the table. The patient (his clothing being removed all except his flannel shirt) was now lifted upon the table, covered about the lower part of body and shoulders with blankets, a few pieces of brick heated in the kitchen fire were wrapped, and placed about him. As it was now dark I had to proceed by lamp light. My friend the Register of Deeds gave the chloroform.

On removing the flannel shirt (which had to be done very carefully as it seemed to have adhered to his intestines) a mass larger than a man's head presented, composed of nearly all of the transverse colon, about three feet small intestines and a large mass of omentum. The intestines were distended with gas and congested, the whole thing presented the appearance of a huge strangulated hernia. The intestines were covered in places with blood clots, indentations of the meshes of the flannel shirt were seen on their external coats. Having cleansed my hands and instructed the by standers, on no account to touch any thing I proceeded to pack towels wrung out of hot bichloride solution between the intestines and the skin of the abdomen, the hot salt solution which was poured into the bag syringe as needed, was now turned upon the mass, free hemorrhage at once occurred, this was found to proceed from a small rent in the mesentery of a loop of small intestine, the bleeding points were caught with forceps and the cleansing continued. All the clotted blood having been removed by douching and sponging with sterile gauze, every portion of intesine and omentum was carefully examined, the only wound found was the rent in the mesentery already mentioned, which was about one inch long and did not look like it had been inflicted with a razor. The omentum presented a particularly bruised and congested appearance.

Having found that none of the intestines were cut, I now proceeded to tie off the bleeding points in the mesentery. I used for the purpose four ligatures of fine cat gut, and the rent was closed with sutures of the same, the intestines were now given a thorough and final douching with hot saline solution, and I was ready to return them to the abdomen. This was found not very easy of accomplishment, as they were strangulated through the wound in the abdominal wall, from being enormously extended with gas. I contemplated enlarging the wound, but it was found that by raising the intestines with one hand, and gently crowding the gas with the fingers of the other into the portion remaining in the abdominal cavity, the distention would be relieved and they could be returned without enlarging the wound.

The intestines were returned first, omentum last. As soon as the strangulation was relieved I was pleased to see this regain its normal color. The wound in the belly wall was eight inches in length and extended from a point about one inch above and a little to the right of the umbilicus in slightly oblique direction downward to the left going

deeply into the muscles of the flank, the razor cutting off in its course the cartilaginous ends of two of the false ribs.

The wound was now lightly packed with sterile gauze, and a thorough toilet of the skin was made. All fluid and blood was then mopped out of the abdominal cavity, and the wound closed with sixteen (16) through and through sutures of silk worm gut, the skin was coaptated with interrupted sutures of silk.

I used no drainage, the wound was dusted with markasol, and covered with a thick pad of gauze and absorbent cotton. A snug abdominal bandage applied over all. The wounds on arms and back were sponged out with hot bichloride solution and quickly closed with continuous sutures of cat gut, the patient wrapped in a blanket and placed in bed which was heated with hot bricks. Time of operation after being placed on table, until removed to bed, one hour and ten minutes. He reacted well, his bladder was relieved with the catheter before I left the house, and he was given a hypordemic of morphia, a negro woman left in charge with instructions to give him nothing but hot water to sip, and to keep him in the recumbent posture until my visit next morning.

The future history of the case was entirely uneventful, beyond suffering some nausea, for the first twenty-four hours, he never had a bad symptom his temperature never reached 100 deg. F. and he was hungry all the time. His bowels were freely moved with epsom salts after forty-eight hours, no food was allowed until after the second day, then he was fed on chicken broth and crackers. On the eighth day I removed dressing, and took out the stitches the wound was found firmly healed. There had been no suppuration or stitch abscess, on the fourteenth day he was sent home a distance of five miles in a buggy. There is no resulting hernia and he is now doing his regular work as a lumber cutter.

This case I am aware, holds nothing of special interest to the surgeon who does his work in a hospital, or in well appointed private houses, with the aid of competent assistants and trained nurses. It may, however, interest the men, who like myself have to do surgical work in the country, among all classes, frequently in dirty and unpromising surroundings, without the aid of any one except the bystanders. It is also not without a certain medico-legal significance, inasmuch as a man so desperately wounded as this one was, seemed able to travel over very rough country a distance of nearly a mile, again it illustrates how well the negro can withstand the gravest injury, and not succumb.

Some Duties of the Physician with Regard to the Two Important Factors of Hereditary and Environment.

By I. A. McSwain, M.D., Paris, Tenn., Ex-President of the Tri-State Medical Association of Mississippi, Arkansas and Tennessee.

The Physician who would confer the largest possible benefit upon his clientele must of necessity play the roll of teacher as well as doctor, and will find himself constantly confronted with more or less opposition to his efforts. It may be said that about all the trouble on the one hand and graces on the other are attributable to the two forces of Heredity and Environment.

We are what we are by things we inherit, coupled with the influence of surrounding conditions. People, as a rule, are indifferent to both these. The physician by reason of his peculiar relationship toward humanity, and on account of his research into the minute structure and qualities of the species, is at once the most competent witness of the action of these two forces, and is essentially in a large measure placed in rather an unenviable attitude of bearing a responsibility that to a degree compromise his own pecuniary interest.

Indeed, it is quite unique and altogether out of the usual order of things, that the medical man should be expected to study and teach doctrines which, if universally believed and practiced, would readily antagonize his worldly interests by a great curtailment of his business.

We find in every other calling or pursuit, that means are used by people engaged therein to increase their business interests, and the rule appears rational, but were this true of the medical profession, there would not be a single law on the statutes of any State, or a single municipal regulation, looking to the prevention of disease or the promotion of the public health. Neither in all the world could there have been found a man that would have sacrificed his time, his fortune or his life, in searching out the hidden sources of disease and of devising methods of protection from "the pestilence that walketh in darkness and the destruction that wastieth at noonday."

Had self-interest dominated the medical mind, as it does every other business, doctors should have been foremost in sowing seeds of degeneracy and decay.

Not only have all sanitary measures that we have been forced on law-makers by the persistent efforts of medical men in direct conflict with their own interest, but strange to say, they have had ignorance, superstitions and even persecutions, to meet and overcome in the propagation of such measures. While their mission appears to be that of prescribing medicines for the relief and cure of disease, yet they interest themselves in showing the people the art-keeping well, and of avoiding the necessity of medicine.

What a difference between the motives of the honest and regular practitioners and the quack or patent medicine vendor is here manifested. The secret medicine manufacturer is sharp enough to take care of his trade by loading his nostrums with stimulants or narcotics, which he knows will by their use create in the subject their own demand. While the charlatan or quack has no other motive than of extorting as much as he can from the pockets of his credulous admirers.

We assert that no motive akin to these ever finds lodgement in the true, honest purpose of a medical man with a conscience.

The civilization and progress of which our country boasts and of which she is justly proud could never have been achieved and maintained by arms, however victorious, nor by statesmanship however wise and great, nor by politicians however artful and cunning, had these factors, mighty as they are, not been supplemented by the self-sacrificing, self-denying work of faithful intelligent medical men. And in this regard at least doctors, although as a class they may not be given to much religious display, certaintly do reproduce in a marked degree in the drama of the world's history the spirit and genius of the man of ancient Gallilee, who became poor that others might be rich, and finally yielded up his life for his fellows.

The highest type then of the physician is divorced from the mere mercenary aspect of his calling considering that as secondary to his purposes, and is at once a *teacher* as well as *practitioner* of his art.

To encourage him in this regard and to make some general suggestions is the purpose of this paper, and with no effort at being classical we will refer extemporaneously to the two forces above mentioned.

The things we receive by heredity may be a blessing or a curse, but as doctors have to deal most with the evils, it is to some of these we would direct attention:

The evils of heredity are thrust upon luckless offspring without their knowledge or consent and would be easier prevented than cured. To be successful in this undertaking we should have to begin a generation or two in advance. But let him understand who enters this field he does it at his peril, for he will be met at the very threshold with all sorts of opposition from many directions.

If a given number of boys and girls were taken at their birth and trained up under the watchful care of competent medical men, who should have complete control of their feeding, dress, education, exercise and sanitary surroundings, you at once see how arduous would be the task. Let us briefly review some of the reforms that would have to be instituted. The babe would have to be fed in proper quantities and at regular intervals, and not drugged on opiates or stimulants nor on anything else not absolutely necessary. It should have plenty of fresh, wholesome air to breathe, and sunlight to bask in, no smoking should be allowed in the room, and it should not sleep in bed with its parents unless they will agree not to cover up its body and head under bedclothing saturated with emanations of their own bodies. Its clothing should be made with comfort, not for show; nothing in the way of dress should be permitted that would interfere with normal physical development.

As it grows older and approaches the critical change from childhood into young manhood or womanhood many reforms are needed. Especially is this the case in regard to dress, exercise and education of girls.

Just here the doctor will be met with most violent opposition, for silly mothers, dame fashion and social custom will with one accord arise up in rebellion. Mothers seem to think their girls should be delicate and rather take pride in referring to their pale, sickly-looking daughters as being nervous and sensitive and physically and mentally unable for certain tasks and on no account are they allowed to engage in outdoor play or work lest their beauty be marred and they become too much like boys.

Dame fashion, with her new patterns in one hand and a most despotic scepter in the other, approaches and declares that nature blundered in her architecture, that the female form is out of harmony with the universe and must be changed. So this old monarch, beginning at the head and ending with the feet of the virgin, succeeds in distorting or misplacing about all of the mechanism of both mind and body, and of turning out a piece of workmanship that totally sets aside the theory of evolution, if Mother Eve be considered as a true type of a perfect woman. The retrogade me-

tamorphosis has certainly predominated to such a marked degree that the performance of the sacred duties of wifehood and motherhood have with that large class of devotees to fashion been rendered well nigh impossible and certainly to that class quite distasteful, for they have come to regard child-bearing as a great misfortune, and if they should be overtaken it is usually the result of accident, and the laws of modern society are so nice and exacting that pregnancy is regarded with so much horror, they ignore the crime, but seek all sorts of mistakes to put a stop to the process by murder of the child in utero. Is it any wonder that heredity puts the seal of moral degeneracy upon the offpring of such parentage?

The remedy is plain. Take away the absolute monarchy from that old wicked dame fashion and enthrone the Goddess of Reason, and let her have dominion in all matters pertaining to woman's dress and habits and then reform the laws of society on a basis of common sence and let nature have her way in the development of God's last best gift to man. Much of this reform must be instituted in the home-training of children, and many changes and additions will be required in the curriculum of schools as well as the customs of society, but the doctor will of necessity be compelled to instill correct principles into the minds of parents and teachers.

The wise saying of the ancient Judean King, "Train up a child in the way he should go, and when he is old he will not depart from it" has never been successfully contradicted.

Boys and girls, young men and young women need be continually admonished that certain vicious habits will not only seriously interfere with their own physical and psychical development, but will affect most unfavorably their offspring. Teach those who may be the victims of certain diseases known as hereditary that to marry would be most unwise, as the progeny of such a union would be greatly inclined to suffer from such disease; and that the happiness which they seem to see in such marriage relationship is an illusion, disappointing in its sequence and stops but little short of criminality in visiting upon helpless innocency a lowered vitality, defficient in resisting capacity and instead of a blessing become a burden to themselves and a source of much anxiety and grief to the household.

Such unfortunate marriages are to be discouraged on the ground that life to such individuals would mean more if spent in celebicy. The duties and responsibilities of the marriage relation bring with them no surcease from existing maladies, but may open up new avenues of disease that single blessedness would have obviated.

The experiment of enacting laws to prohibit the marriage of consumptives, &c., is being tried in some of the States and its effects will be watched with much interest, and while legal enactment may become necessary, yet perhaps more good can be accomplished by proper information taught the young people along on these lines. Just here a timely suggestion would be in order to teachers and managers of schools. We are aware, too, that of all vocations the pedagogue is perhaps quickest to resent an encroachment on his rights, and while we have the most profound regard for his ability and learning on other lines, yet would suggest that to keep pace with the progress of current events the teacher should become familiar with the anatomy and physiology of the human species, must understand something of the functions of the various organs of the body, and appreciate that education consists in something more than a knowledge of mathematics, languages, &c., for however well the mind may be stored with such learning, it is of small use if to acquire it has exhausted the physical being. For what becomes of all this brilliancy if it be eclipsed by premature failure of the vital forces and swallowed up in an untimely grave? Or if the scholarly (?) young man and woman in total ignorance of the consequences enter into marriage with the result of bringing into existence an offspring, bright, indeed, and intelligent, but who have not the physical stamina to battle with the rude elements of the world, but quickly succumb to disease, what is the world profited? Indeed, we are in danger of allowing the scramble for mental excellence to become the sole purpose of education, much to the detriment of well rounded physical manhood and womanhood.

For after all, What is mind without matter? The Christian (?) Science (?) Cranks to the contrary notwithstanding.

No school ought to exist that does not couple physical development with mental training. Again, it is impossible to divorce moral evils from the etiology of disease. Hence habits such as the use of alcoholics and narcotics are to be unconditionally condemned. The liquor habit ranks as the monster vice from the moral standpoint and it is no less true that it is among the foremost causes in the production of physical degeneracy and decay. This and the opium habit are as clearly hereditary as are consumption and cancer. The profession should be as positive in condeming such

practices as they have been alert in their efforts to stay the progress of contagion.

Alcoholism is the dreaded foe of humanity. Not only is the subject himself a moral leper, reproducing the habit in his posterity, but also propagates a race of degenerates from which arise the most complex array of physical and mental disorders.

The physician, a teacher of sanitation, a promoter of public health, cannot afford to be indifferent to the widespread havoc made by this arch-destroyer and should clearly point to the evils incident and consequent to even the so-called moderate use of intoxicants. We have noticed some of the factors that would greatly modify the force of heredity. If brought to bear upon a generation, the good results to the offspring would be the prevention of many of the evils with which we are all familiar as being transmitted from parent to child, and this is largely the work of the doctor as teacher.

We will now notice how environment may mitigate some of the evils of heredity, for after all practically we are forced to deal with things as we find them.

The force of heredity is not considered as being so resistless as formerly. Especially is this true in regard to tuberculosis, since it is now generally conceded that the disease *per se* is not hereditary, but the heritage consists in that peculiar cell structure, which produces in the child a tendency or predisposition; or in other words, lowers his powers of resistence to the disease. Hence the case is not nearly so hopeless as was once believed. For, according to the present light on the subject, the child is in far more danger from environment than from heredity. If removed at once from its tuberculous parents, especially if it be the mother, and properly nourished, and kept from *all sources* of contagion it would not develop tubercle.

This statement opens up a wide field of thought and of almost infinite activities for both the profession and the State. All known methods of isolation and quarantine and other measures for the prevention of contagion need be called into requisition and much more legislation will be needed, and the habits and customs of the people greatly changed. People sadly need information on this subject. When it is universally understood that consumption ranks as one of the contagions and can be prevented by proper means it will result in great curtailment of the ravages of this insidious foe of all civilized humanity.

The old belief that the disease was hereditary and therefore unavoidable was a great barrier in the way of undertakings for prevention. Whole families have been obliterated by the disease under the false notion that nothing could be done, when really instead of them dying with so-called heredity consumption, they simply caught it one from another, their systems by heredity being easily affected by the contagion.

We cannot enter into a detail of methods but the duty of the physician, called to treat tuberculous patients is plain, and he should perform them to the fullest extent of his ability.

It should be remembered also in prescribing for the descendants of opium or morphine or cocaine habitues that such patients are peculiarly liable to contract the habit, and opiates should be prescribed for them with great caution if at all. Proper environment may do much to overcome the terrible hereditary evils of the liquor habit. Children of drunkards or of moderate drinkers are in great danger of contracting this vice, and there are two forces at work to bring about this result. The thirst for alcoholic liquors or the weakness to resist their use is clearly hereditary. But this is not all, men and women who drink whiskey, as a rule, regard it as a sovereign remedy for all the ills of mankind, and also a good thing to use in health. Hence they sweeten it and give it to their children, who, of course, are by no means averse to its taste or effects, and their natural taste for the drug coupled with the pernicious example of their parents and others, render them easy victims to the drink habit, and (pardon the personal allusion) some doctors (not many, we trust), are rather bibulous and convivial, and by routine we fear too much given to prescribing alcoholics for every little ailment. No physician can afford to be indifferent or careless here. We should thoroughly appreciate the danger and prescribe alcohol with as much caution as we do any other poisonous drug. If the children of dram-drinkers could be removed from their parents and from all sources of temptation the number of drunkards would show a marvellous decrease.

In this regard the State and municipal governments could do much to mitigate the evils and prevent the drink habit, and with it much lawlessness, vice and crime. Hospitals for the drinker would be in direct line with the civilization of the age and a great stride in political economy.

But to be thoroughly competent for this work of rescue governments must come to understand how easily the hereditary predisposition asserts itself in the presence of temptation, and hence all organized institutions whose business it is to propagate the liquor habit stand in the way of proper en-

vironment of a large class of the population and should not be fostered and legalized by the sanction of government.

Penetrating Wounds of the Eyeball.*

By B. R. Kennon, M. D., Norfolk, Va., Attending Ophthalmologist and Otologist, St. Vincents Hospital Formerly House Surgeon New York, Eye and Ear Infirmary.

A penetrating wound of the eyeball is such a serious condition, menacing the functional integrity of the injured and the uninjured eye as well, and being by no means of unfrequent occurence, that any of us, be he specialist or general practitioner, will have to deal from time to time with this class of cases and as prompt and proper tretment has a most essential bearing on the prognosis, I have endeavored to outline as briefly as possible their management. It is intended in this paper to discuss only those cases in which the tunics of the eyeball are perforated, or in which the sclera or cornea is penetrated by the wounding material.

In the consideration of penetrating wounds of the eyeball, there is a class of cases which has but few exceptions, which calls for enucleation. I refer to those eyes in which there is surely a total loss of vision and it is well to remember the aphorism that a blind eye is a dangerous one to its fellow when the blindness is due to an injury.

We are only too prone to err on the wrong side in leaving these eyes, when they can be of no possible use, except the very insufficient one of cosmetics and even then it is very questionable whether a blind shrunken eye is not more unsightly than an artificial one.

The above statement may appear to be too sweeping, but when we remember that there is always danger of that terrible affection, sympathetic ophthalmia in the feliow eye, I would prefer to enucleate hundreds of blind eyes rather than to lose the one remaining eye from this terrible affection. It rarely gives us warning and after its onset its progress is almost surely a total loss of vision in spite of all we can do. It is then usually too late to ennucleate the injured eye, for I can recall only one case in which this procedure checked the progress of this terrible malady.

*Read before the Seaboard Medical Association, Dec. 19, 1901.

These injuries vary according to the (1) physical and chemical characters of the wounding substance; (2) as to whether it remains in the eye or is withdrawn; (3) whether septic or otherwise; (4) and the most important consideration as to the situation of the wound. As to the physical characters of the wounding substance, wounds made by a sharp instrument such as glass are cleaner and therefore less dangerous than those made with splinters of wood, rusty iron, etc.

There is a great diffiference as to the chemical composition of the wounding material and this is especially true if the foreign body is retained in the eye, glass and lead being the most innocuous, at times becoming encysted and cause no further trouble, while copper, brass and to a less extent stone and iron cause a disorganization of the ocular structures, the first two, viz, brass and copper causing a disorganization simulating an infective process.

It is very important, in the prognosis, as to whether the wounding substances has caused an infection and we can frequently form some idea of this, depending on its temperature, for often chips of steel or iron which cause these injuries are at a high temperature, which of course renders them aseptic. It is of the utmost importance to determine whether the wounding material has remained in the eyeball or has only penetrated its tunics and rebounded.

We can often determine this by the character of the wound, especially if it be in the cornea. If in the latter situation we are to examine the iris to determine if it is perforated and the lens as to any injury. It has been my experience that in wounds made by small bodies moving at a high velocity, that if the iris is incarcerated in the corneal wound the body has probably rebounded, whereas if there is no incarceration with a wounding of the iris the foreign body has probably remained in the eye.

When the foreign body is iron or steel it is rarely the case that its presence cannot be demonstrated by means of the Habb magnet, which is a powerful electro-magnet, as was stated in a paper by me devoted exclusively to this subject and published in the New York Eye and Ear Infirmary reports for 1898. But some care is required in the use of the magnet, as so many men are too prone not to exercise sufficient patience and care in its use.

In the use of the magnet is is often advised to cocanize the eye. This procedure is in my opinion unwise, as it may elminate one of our most important signs, viz, the presence or absence of pain when the

current is applied. The eye should be approached to the point of the magnet as closely as possible but not in contact and then the current should be suddenly applied when very frequently the patient will complain of pain or as a drawing sensation, though I have not unfrequently observed that there are no subjective symptoms, and it is in these latter cases that we have to exercise extreme care turning the current off and on repeatedly and observing the eye closely and from several directions, for a bulging of its tunics as a point opposite to the point of the magnet.

Probably the most important classification of penetrating wounds is that depending on their situation, for the situation has a most important bearing on the prognosis, management and treatment of the case.

Penetrating wounds have been divided according to their situation into four classes as follows: 1, Corneal; 2, Corneo Ciliary; 3, Ciliary and 4, Scleral, but as the first and second do not differ either in prognosis or treatment I will consider them under one head. Therefore we have 1st Corneal wounds in which I include those extending 2 m. m. beyond the cornea; 2nd Those of the Ciliary region which extend from 2 m. m. beyond the corner backward for about 8 m. m. on an average, and 3rd those of the sclera which includes the remainder of the eyeball.

Simple uncomplicated corneal wounds give very little trouble if properly dealt with in the beginning, all that is necessary is to irrigate the conjunctival sack with a 4% solution of boric acid and dilate the iris with a 1% solution of atropin, put on a protective bandage and confine the patient to bed for a few days. A few of them become infected and then we are confronted with a very serious condition, for often in spite of all we can do the infection extends backwards involving first the aquous and finally the vitreous and ending in panophthalmtis. At the very first appearance of infection the wound should be cauterized with the actual cautery the iris kept thoroughly dilated with atropin and the eye kept constantly bathed with hot boric acid solution and when I say hot I mean as hot as the patient can bear and not merely warm. I have often seen hot bathing work wonders in these cases.

In case the infection is not arrested by the above measure and the condition of panophthalmitis supervenes it has been my costom to enucleate the eye, for by this means, we save the patient much suffering, weeks of convalescence and the dangers of orbital cellulitis. I am aware that the enucleation of a panophthalmitic eye is in contradiction to the teachings of many eminent authorities but in quite an extensive experience in the enucleation of panophthalmitic eyes I have yet to see one unfavorable symptom following this procedure, whereas I have seen one death due directly, in my opinion, from neglect to enucleate promptly. When the corneal wound is complicated by the incarceration of iris into it, then there is a great difference in the treatment for it can be laid down as a fixed rule that the iris should never be left incarcerated in the corneal wound. The great importance of freeing the iris is due to the fact that no matter how quiet the eye may apparently be, it is liable to repeated attacks of iritis and iridocyclitis finally ending in the destruction of the vision. This alone is a sufficicnt reason for freeing the incarceration, but another and to my mind more important one, is that the fellow eye is constantly menaced with sympathetic ophthalmia. I wish here to lay special stress on the latter danger for a glance at the statistics shows that we are too often lulled into a feeling of false security only to see this dread affection light up when we least expect it and when the patient is removed from skilled aid. According to Alt

22¼% come on in from 1 to 10 years.

12% from 10 to 20

13⅓% from 23 to 40, so altogether 47½% come on in more than one year after the injury. For this reason I wish here to condemn the so called expectant plan of treatment which to my mind is simply inviting disaster, and it is so very much easier to prevent than to cure after this dreaded malady makes its appearance. Now how should this incarcerated iris be dealt with.

If seen within the first thirty-six to forty-eight hours, it can usually be freed without a great deal of difficulty, pulled out with iris forceps and cut off with the scissors and in many cases even when seen after thirty-six hours, it is advisable to free the iris at once, but in not a few, especially if there is much reaction and no unfavorable symptoms, such as irritative trouble in the fellow eye, to wait until the eye is quiet and then to free the iris. Frequently in these cases the lens is also wounded, in which case it is usually best not to attempt manipulation for the removal of the lens matter at the time of the operation for the freeing of the iris, but to wait, when frequently there will be an absorption of most of the lens matter without any further trouble. Should there be such a swelling of lens matter as to cause pressure on the iris or closure of the iris angle producing iritis or acute glaucoma, it is a comparatively sim-

ple matter to remove the swollen lens by a linear or extraction with an angular keratome.

Wounds of the second class viz; those through the Ciliary region are by far the most dangerous both to the injured as well as the fellow eye, from sympathy.

They are more dangerous to the injured eye, because they are frequently followed by marked irritation with opacities in the vitreous and continue painful and irritable for indefinite periods. They are also especially dangerous on account of the vascularity of the ciliary body, causing a considerable hemorahage into the vitreous with disorganization of that important humor followed by loss of the function of the organ.

They are especially dangerous to the fellow eye because the ciliary region is especially the dangerous zone in the causation of sympathetic ophthalmia and it has been rare indeed that I have seen a wound through the ciliary body in which an attempt was made to save the globe that did not finally necessitate enucleation either from irritation of its fellow or remaining permanently irritated and painful itself, and I have yet to see a single case of a wound extending through the ciliary body in which there was any degree of useful vision not when it was possible to obtain it by any procedure within our knowledge.

The third class of wounds viz: those of the sclera usually result in the loss of vision of the eye for there is often a considerable loss of the vitrious humor followed by choroidal irritation with floating opacities and often a disorganization of the vitreous or there is such a severe hemorrhage from the wounded choroidal vessels into the vitreous that it never clears up—scarcely ever leaving any considerable degree of vision. The above mentioned complications frequently so seriously effect the nutrition of the eyeball that it finally atrophies and, if irritable, requires removal. They are next to simple corneal wounds the least dangerous to the fellow eye and I do not recall a single case of sympathetic trouble following a purely scleral wound.

In a paper on penetrating wounds, I may have appeared to have put too much stress on sympathetic ophthalmia but as the latter is always caused by the injuries under consideration and as it has to be considered in the handling of every case and furthermore when we remember that this dreadful malady usually strikes suddenly but no less surely and as the larger class of injuries are in people under the age of forty, is it not a dreadful thing for them to spend the remainder of their lives in total blindness?

64, Granley St.

Does It Pay to Give Cod Liver Oil in Consumption?

By H. Y. Ostrander, M. D., Brooklyn, New York.

What's the use, after all, of a man's telling what it has done? Was it so much worth the doing that he would hope another might do the same? And does he expect that by explaining how it was done, another may go and do likewise? What's the value of personal testimony, anyway? Can the benefits of individual experience become an influence for good outside of the individual, or has each one of us got to learn the truth for himself and remain incapable of imparting the wisdom of the lesson? Is medical science advanced by original research? Is 'healing art' perfected by independent investigation? Suppose it is—what of it? Then each and every one of us may be pardoned if he presumes to record his personal experience for professional benefit.

The vast and ever-increasing accumulation of material, representing the studies and labors of experimentors pursuing special branches of medical learning, contributes inestimably to the growth and progress of medical science, but renders imperative a special cultivation of particular subdivisions of medical art. Maybe, this is why some of us are striving to know 'everything of something' rather than 'something of everything'; possibly this may be the reason why a few of us are satisfied with doing nothing well rather than many things poorly.

Practitioners who direct their attention exclusively to a particular class of affections are known as "specialists," and are addicted, perhaps excusably, to the habit of attributing to their 'specialty' an undue relative prominence, and of considering the diseases it regards to be of paramount importance. It is not my intention here to be understood as conceding to 'pulmonary tuberculosis' a position of eminence unmerited by either its ubiquitous prevalence or discouraging mortality. But I would like to be interpreted as meaning that the terrors of phthisis lose much of their horror and fatality if only the disease be dealt with by measures whose value has been positively proved, time and again, in the practical results of actual experience.

Cod liver Oil is not a panacea; but only a 'specific.' Quinine in paludism; mercurials and iodides in syphilis; and iron in anæmia; are scarcely more deserving of their claim to 'specific action,' than is Oleum

M'orrhuæ by virtue of its 'special' influence upon a particular disease.

I am not so sanguine as to hope that the reader will find anything new in his perusal of the following reports, but I shall consider myself amply repaid for my pains and labor if only they may succeed in strengthening his conviction, even ever so little, that Cod-liver Oil is capable in many instances of affecting an alarmingly fatal affection in a distinctly favorable manner.

Case 1.—B. M., a young French woman. aged 21; well educated, and engaged as governess in an American family. Her father had been afflicted for twenty years with an anchylosed knee-joint the result of a tuberculous synovitis. An older brother had died at thirty from pulmonary phthisis. Her mother and sister were both living and in robust health. Consulted me for the first time in March, 1895. During the previous winter she had suffered from a very severe attack of influenza, and the accompanying bronchitis had never entirely resolved. When she came under my care, expectoration was profuse. Stated that she had lost sixteen pounds in four month. Menstruation had ceased in January. Appetite was gone and sleep was obtained at night with difficulty. A temperature of 101 every afternoon at four was followed by a profuse perspiration lasting until ten at night. Inspection revealed an extreme emaciation of whole thorax. The resipiratory excursion was markedly limited. There were deep hollows above and below both clavicles and the scapulæ looked like bird wings. Palpation gave increased vocal fremitus in both infra-clavicular regions. Percussion elicited a disseminated dullness all over same area. Auscultation indicated distinct broncho-viscular breathing, with large and small moist bubbling rales. Four microscopical examinations of the sputum were made (two at hospital laboratory and two by a specialist) and only one of the four demonstrated the presence of tubercle-bacilli. I began vigorously on the 'specific' Cod-liver Oil treatment immediately. The administration was begun by minimum doses of hydroleine (a predigested, pancreatized, hydrated emulsion of pure Lofoten Cod-liver Oil) six drachms daily (two drachms. three hours after each meal). This amount was rapidly increased as toleration permitted, up to three ounces every twenty-four hours. This quantity was continuously administered during four months. In the month of July, I made my second examination of the case. Her condition then was as follows: weight, twelve pounds heavier than at previous visit; menstruation returned one month after ingestion of oil began; appetite was hearty, digestion strong, and sleep sound. The afternoon fever and evening sweats had topped. Expectoration had gradually diminished and finally disappeared. Respiration became full, deep, soft, and vesicular. Three months afterwards (in Oct. '95) I received a letter from her stating that she had resumed her position as governess and was really enjoying better health than she had been privileged to for years.

Case 2.—L. D., a young English woman 18 years of age, excessivly studious and passionately devoted to educational interests. She inherited a strong tubercular diathesis. One sister had died of pulmonary consumption at the age twenty-four. Her appearance presented such a vivid clinical picture of the phthisical dyscrasia as to be veritably pathognomonic of that affection. The anatomical structure was light and frail; her features were small and delicate; the skin was fair, smooth, and transparent—the blue veins being quite distinctly visible beneath it; the sclerotic tunic of the eye was of a pearlish hue; and the pupils were dilated by a hyper-sensitive sympathetic nervous system. Her hair was soft and silky; the teeth were thin and fragile, but remarkably regular; and all the muscles of the body were soft in substance and deficient in development. The whole nervous organism was irritable; and the mind, vivacious and precocious. The menstrual function had become fully established when she was thirteen years old. Her mother brought her to me for treatment in the autumn of 1896. During the previous summer she had lost fourteen pounds in weight and her monthly sickness had been absent for three successive periods. A dry, hacking cough had now become habitual. It was not until an afternoon fever of 100 deg. and prolonged, debilitating sweats commenced that she began to be thoroughly alarmed. A piercing, stabbing, lancinating pain through right chest soon became a distressing feature of the case. Anorexia, insomonia, and melancholia were complicating conditions. The expectoration was so scanty that any microscopical examination of the sputum was practically out of the question. On the first of October (1896), I instituted my 'specific' Cod-liver Oil treatment by administering Hydroline, two drachms, three hours after each meal. Within two weeks I had increased it to one ounce, t. i. d., three hours after meals. Her system seemed to assimilate it with wonderful ease and tolerance. On the first of January (1897), after three months of this pancreatized, pre-digested Cod-liver Oil regime, she reported at my office in the following condition: had gain-

ed seventeen pounds of flesh; her dry, hacking cough had completely disappeared; the afternoon fever had subsided and the night sweats had ceased. Menstruation had become re-established. The piercing, stabbing, lancinating pains through her right lung had long ago been forgotten. She ate heartily and slept well. The respiratory expansion was of normal amplitude and the breathing was full, deep, and vesicular.

Case 3.—A. J., Male, aged 27, University student preparing for the clerical profession. His father had died of pulmonary phthisis at forty-five years of age. One sister living who was a chronic invalid from a tuberculous, spinal disease. Mother enjoyed robust health. He first consulted me in regard to his condition in July, '97, soon after completing his theological studies. At that time he weighed 121 pounds, having lost twenty-four pounds, during last seminary year. A temperature of 101 deg. occurred every afternoon followed by profuse sweating in the evening. An exhausting cough, attended by copious expectoration, was more or less constant during the waking hours. Three microscopical examinations were made of the sputum and one revealed the presence of tubercle-bacilli. The case presented most every characteristic physical sign of pulmonary tuberculosis. Deficient respiratory expansion; increased vocal fremitus; absolute dullness on percussion; and bronchial breathing with large moist bubbling rales. Anorexia was complete; insomnia, stubborn. On the fifth of July I started in on the case with hydroleine as the dietetic and therapeutic 'specific.' Beginning only with one drachm, t. i. d. two hours p. c., I gradually increased the amount to the maximum degree of toleration which was reached in three weeks. The quantity then being taken was four ounces every twenty-four hours. This large administration was sustained for five months. On the first of December, 1897, I gave the patient a thorough examination. He presented the following physicial condition: Inspection—deep, full, ample expansion; Percussion—flatness had entirely disappeared; Auscultation—soft, quiet, vesicular breathing with proper vocal resonance. The inflammatory process as well as products seemed to have undergone complete resolution. His weight at that time equalled 150 pounds, representing a gain of twenty-nine. He assured me that he never felt better in all his life and conscientiously believed that the hydroleine had been the salvation of his bodily health.

"Does it pay to give Cod-liver Oil in consumption?" Well, yes, it does pay—and it dosen't. If a preparation of the oil is used which has been predigested, pancreatized, hydrated, emulsified, and physiologically adapted to the enfeebled digestive and assimilative powers of the phthisical patient, then its administration pays, every time; but, on the other hand, if one of the many ordinary, diluted, highly-flavored, and (possibly) popular 'shop' emulsions be employed and ingested with no regard to physiological principle or dietetic law, then its administration dosen't pay—no, neither physician nor patient!

Thyroiditis.

By F. R. Millard, M.D., San Diego, Cal.

In the January issue of the American Journal of the Medical Sciences is a paper entitled "Thyroiditis Complicating Typhoid Fever," in which are statements like these: "Inflammation, however, of the Previously Healthy Gland is Rare," "The Idiopathic Form is Exceedingly Rare," "Admittedly Rare." In my opinion it would be more nearly correct to say, that it was rarely recognized. The larger part of what has been written about it has been by French surgeons, not because it is more frequent in France than it is in England or America, but because it has there been more frequently recognized. If we compare its frequency with that of typhoid fever, it might be called rare. On the other hand, Sydenham's Chorea is not called "exceedingly rare." But if I am not mistaken, thyroiditis is more frequent. Practically every case of chorea comes under the doctor's care, while a goodly proportion of cases of thyroiditis have no great intensity of inflammation, and in rural communities especially, if the doctor sees the case at all it is rather by accident than otherwise. And often when the intensity is greater there is a domestic diagnosis of mumps, and with them their medical advisor is rarely consulted unless there is metastasis. And since resolution is apt to take place after about the same interval from the commencement, the patient may go through life believing he has had mumps. Several patients who were being treated for this disease assured me that they had mumps before. In each case they admitted that the former attack was mild, and that they had none to give away, even to members of their own family. While the possibility of a second attack cannot be denied, it should not be assumed as a fact unless both were diagnosed by a competent observer. I have long believed that trauma was a ne-

cessary antecedent to suppuration, provided the gland had previously been healthly. Only one such case was seen and that was treated 35 years ago. It was a new experience to me, and at the time gave me no little anxiety. However, he got well and got married, and what is *hoped* is that he lived happily ever afterward. What is *known* is, that he ran away and didn't pay me a cent. The likeness of thyroiditis and parotitis in their early stages is not very great, yet the medical man may sometimes hesitate at making a positive diagnosis on the first examination. But he need not hesitate as to treatment, for the means, general and local, applicable to one are equally applicable to the other. For some years past a routine local treatment has been the application every 4 to 6 hours of a liniment composed of equal parts of guaiacol and sweet oil. This is a recognized remedy in treating gonorrhœl epididymitis, and while it will not always prevent suppuration in a gonorrhoeal bubo, when it has been applied quite early it has succeeded oftener than any other treatment that has been tried.

Modern Methods of Treating Syphilis.*

By Dr. Eugene Carson Hay, Hot Springs, Arkansas. Ex-President Hot Spring Medical Society, member Arkansas Medical Society, American Medical Asiociation, Mississippi Valley Medical Association, Tri-State Society, and Fellow of the American Academy of Medicine.

In the treatment of syphilis, as in that of many other diseases, the problem is expulsion of the toxin and the destruction of the toxic agents. And in our efforts to achieve these objects, it is necessary to take care lest, while removing the untoward symptoms directly traceable to a specific disease, we derange the organs or destroy together with the microbe portions of the system in which he made his home.

It is a common saying now-a-days that syphilis is better understood, more easily handled, and altogether less serious a complaint than gonnorrhœa. This is one of the half-truths which is worse than falsehood, for, while the routine methods of treating syphilis may be simple enough, the actual cure of the disease requires vigorous methods and a long period of regular and systematic treatment, and no living man knows to what complications it may not give rise and to what extent it may not be transmitted.

I make these general remaks for the purpose of emphasizing the fact that the disease is not one about which we can dogmatize, or shut the book and say there is no more to be learned. Great progress has undoubtedly been made in recent times in the treatment of syphilis no less than of other diseases, and the result is that it is no longer so prevalent or so terribly severe in its manifestations as it once was. Still, the ugly fact remains that in large cities the average attendance at the Genito-Urinary clinics of hospitals, amounts into the hundreds, and of these about one-tenth are found to have acquired the initial sore which is the assured first stage of syphilis. The majority of the victims belong to the lower class of the community, who have not the means to secure for themselves the best kind of treatment, and whose habits and mental and moral condition are such that they are too apt to be satisfied with the removal of the more disagreeable symptoms, and go about spreading the disease, which, continuously gaining fresh vigor from this source, makes its way upward till the most affluent and refined get caught in its loathsome meshes.

It is, however, of the methods of treating the disease that I undertook to speak. This I proceed to do with diffidence, notwithstanding a long experience at the Mecca of American syphilitics. And the cause of my diffidence is that no two cases that come before us are exactly similar, run the same source, or arrive at the same end, and that it is never safe to tell a patient positively even after three years' course of treatment more than this, that at this particular time no symptoms of the disease are discoverable, though generally speaking at the expiration of two years if no symptoms have developed, a patient may consider himself practically cured. While making these admissions, I know that the methods pursued at Hot Springs are such as centuries of medical experience havs shown to be the best adapted for the purpose, and we are greatly aided in our work by climatic advantages such as exist but in few other places. I have read in some of the older books, especially the French writers, that "while mercury is by some esteemed the best remedy, the disease admits of cure without it." I am not prepared to say that the latter part of this dictum can be safely indorsed; but this I do not hesitate to say that, if syphilis can be cured without the use of mercury, there is no agency so far discovered that will be so efficacious for the

*Read at the Annual meeting of the Tri-State Medical Society, Memphis, Tenn., Nov. 19, 1901.

purpose as systematic bathing properly conducted under proper conditions, and the drinking of large quantities of pure water.

Our great advantage at the Springs to my mind lies in the fact that more heroic treatment and larger quantities of mercury and iodide can be tolerated while taking the baths without producing systematic disturbances, and in fact the patient thrives on doses that would produce prostration and revulsion to treatment at home. If we depended on hot water alone no such results could be obtained as we get from the liberal use of mercury and iodide in conjunction with the bath.

For over 400 years mercury has held its position, not only as a remedy but a specific for syphilis. Differences of opinion have always existed as to the best form in which it can be administered, and even yet there is far from being agreement on this point. It is open to objection because it interferes with the stomach and bowels, produces ptyalism, anemia, and loss of weight and strength, and after being used for a length of time losses its power for good and has to be temporarily abandoned in favor of tonics or alteratives. With all these draw backs, it cannot be dispensed with, and therefore it is of the utmost importance to ascertain the most tolerable and at the same time the most effective methods in which it can be used. At Hot Springs inunctions are much in vouge, and in conjunction with baths are productive as a rule of very satisfactory results. But for non-resident patients, and those genearlly who have not facilities for taking medical baths and being systematically rubbed by trained nurses, the need has long been felt for a good means of an internal administration. Protoiodie has for some time been the form of medicine which has met with most favor, especially the G. & L. pill, but even with it the results are very uncertain, and it frequently leads to gastro-interitis, diarrhea, etc. A similar experience is obtained with tennate of mercury and bichloride. With all these forms of mercury, adjuvants and alteratives are requisite, and the physician has always to be on the watch for the signs of gastric irritation, looseness of the bowels, salivation and other unfavorable symptoms.

For the reason indicated, genito-urinary specialist have always an open eye for new remedies or methods that come to them from reputable and reliable sources. While in New York one year ago I went a round of the hospitals and made searching inquiries at each as to the methods pursued and results obtained. At Bellevue, where an unusually large number of cases are attended to daily in the out-door department, I found that Dr. Winfield Ayres was conducting experiments with the new preparation mercurol, and he gave me such favorable reports of the success with which he was meeting that I resolved to try the drug when I returned home.

Mercurol, as you are probably aware, is a nucleid of mercury. It was orignally prepared by Dr. Karl Schwickerath, of Bonn, Germany, and the formula is no secret, being thus described by the gentleman mentioned: "For crude material I employ yeast, which is comparatively rich in nuclein and is available in large quantities. This pure yeast-nuclein is soluble in warm water, but insoluble in alcohol. Its solubility in water is increased by the addition of dilute alkali. If to this we add freshly precipitated mercuric oxide, the latter is quickly dissolved. This reaction is accelerated by gentle warming. If to the solution thus obtained a large quantity of alcohol be added, a voluminous white precipitate is formed, which represents a new chemical compound of nuclein with mercury. Mercural was at first suggested as a gonorrheal remedy. As such I had used it for some time, and in this connection it may be mentioned that Professor Ramon Guiteras has pronounced it superior to protargol and argonin (a).

Dr. Ayres told me that, having heard of the success of the preparation in gonorrhea, it occurred to him that it would be still more useful in syphilis, and that accordingly he had a quantity of the drug made up into tablets for experimental purposes. The result of the observations made by the doctor and his clinical assitants at Bellevue were extremely satisfactory. They were reported in the Philadelphia Medical Journal last fall, (b) and I understood that since then the tablets have been coming into general use in this country and abroad.

My own experience with the drug has extended over the best part of a year, during which time I have treated 100 cases. Of these 100 cases 75 have been completed, or should I say have passed from my im-

(a) "Some notes on the use of mercural: A new Remedy in urethritis." By Ramon Guiteras, M. D., Professor of genito-urinary surgery in the Post-Graduate Medical College of New York; Lecturer on genito-urinary surgery in the University of the City of New York etc. "The Lancet," September 22, 1900.

(b) "The treatment of syphilis—a new and tolerable firm of administering mercury," with report of sixty-five cases treated at Bellevue Hospital. By Winfield Ayres, M. D. attending Genito-Urinary Surgeon at Bellevue Hospital, out door department. Philadelphia Medical Journal, Nov. 10, 1900.

mediate observation with instructions to continue their trearment at home. Twenty-five are still under observation, 16 dispensary cases and 9 in private practice. Of the 75, 44 were dispensary patients and 31 in private practice. The latter had by far the greater advantage as shown by more rapid and better clinical results, because they were all patients from the better walks of life with excellent hygienic and comfortable surroundings; but even the dispensary cases made very rapid progress under the influence of mercurol and baths. All the cases selected were in a secondary stage, from a few weeks from date of infection to two and one-half years. By giving hot baths while taking mercurol, I was enabled to push it to a much higher point in dosage than could be given away from the Springs. The method I pursued was to give a one-grain tablet four times a day, adding one tablet every day until a slight relaxation of the bowels was produced, when I cut the daily dose down one-third and had the patients continue this as a maximum dose every day. The average dose was from six to eight tablets a day though one patient reached fifteen tablets a day before his bowels were affected.

Case No. 20 illustrates the advantage of mercurol over the salts of mercury in not affecting the gums. A young man, 21 years old, of previous good and robust health, presented himself eight weeks after development of chancre. The secondaries develop four weeks after the initial lesion appeared, and he had been taking protoiodide since the first appearance of the rash. At the time of the first visit a large papular eruption still existed over the chest, abdomen, arms and back. In addition his throat was very sore and he was suffering with nocturnal headache and rheumatic pains in the shoulders, elbows and over the sternum. His gums were very sore, swollen and blue along the edges, with the typical patches just back of each wisdom tooth that are so frequently caused by mercury, being due to the redundancy of the gums. I sent him to a dentist to have his teeth cleaned, stopped specific treatment for four days and gave him a hot vapor bath each day. As his time was so limi-ed I then commenced enunctions of mercury. After the application of two enunctions, one drachm each, mercurial cramps were produced and the gums commenced to puff up again. I then discontinued enunctions and placed him on one-grain tablets of mercurol t. i. d., with the addition of a small dose of iodide to relieve his throat, headaches and rhematic pains. The iodide was continued ten days, and then stopped, as the symptoms for which it was given had subsided, and mercurol was continued for one month with the result of a rapid disappearance of the rash without any gastric or intestinal distress, and his gums re sumed their healthy condition,

Case 15 illustrates the rapid action of mercurol. J. B , age 24,developed chancre eight weeks before coming under my care. On examination I found he had a large indurated scar at the seat of chancre. His body was covered, especially the thighs, chest, arms and back with a very mild rosiola and he had a most pronounced general adenopathy, his scrotum was covered and his anis surrounded with condalomotas, and his mouth presented the worst case of bucal syphilis I have ever seen. The interior of his lips, both upper and lower, tongue, fauces and throat were one solid mucous patch, the saliva pouring forth from his mouth in a constant stream. The tongue was swollen so that he could not talk intelligibly. Immediately put him on mercurol, grains one, four times a day, increasing one tablet each day, and 30 grains of iodide t. i. d., increasing five grains each dose nntil 75 grains at a dose was reached. I had the pleasure of seeing this young man's mouth heal completely in ten days, with rapid disappearance of the cutaneous symptoms. This was the case I increased to 15 grains of mercurol a day when diarrhea was produced. I then reduced the dose to 10 grains a day. The iodide was stopped at the expiration of two weeks, but mercurol was continued for four weeks longer, when the patient departed for his home with all physical signs of lues obliterated, except a slight genera adenopathy.

The results I have obtained are extremely satisfactory, and in the main agree with those reported by Dr. Ayres, though our warmer climate and the free use of baths which we enjoin on all our patients, has enable me to increase the dose somewhat more than is done in New York. Two things has always to be ascertained in entering on an experiment with new preparations of this kind—first the maximum dose that can be given without producing nntoward sypmtoms, and secondly the minimum dose that will control the symptoms. The former varies largely according to the constitution and idiosyncracies of different patients, but as a rule it may be laid down that the nuclein with which the mercury is compounded makes it possible for the average constitution to recieve with impunity considerably larger doses of the mental than it would otherwise. Thus Dr. Ayres found that quite a number of patients could

take six, seven or eight one-grain pills t.i.d. and in one case he told me about a young man who took by mistake 12 and one-half grains t.i.d. for two full days, and with no more serious results than the production of a rather violent attack of diarrhea. As each grain of mercurol contains one-tenth of metallic mercury, this was equivalent to a total dosage in 48 hours of 7½ grains of mercury— more by a great deal than any of us would care to administer of any of the other salts in vogue.

This is interesting as showing the comparative safety of the drug, but it is of less practical importance than the reverse point —the minimum dosage that will suffice to control syphilitic symdtoms. Dr. Ayres' experience leads him to fix the average dosage at two grains t.i.d., and here I may mention that his regular custom, as soon as the diagnosis of syphilis is made, is to prescribe one grain t.i.d., and increase the daiis dosage by on grain every fourth day until the point of tolerance is reached, as shown by the slight tendency to salivation or diarrhea, or until there are indications that the symptoms are under control. With the superior advantages we have at Hot Springs the dosage is higher, as previously stated.

When the drug begins to act, it is wonderful how soon its effects are manifested. This applies more particularly to skin eruptions, a decided change in which may often be seen in the course of two or three days, while it is not uncommon for them to disappear entirely within two or three weeks. Its action on mucous patches, though slower, is also quite satisfactory, with the assistance of iodide. especially when the patches are in the throat. It has a good, if somewhat tardy effect on chancre. A mercurol salve I observe has likewise been used with not a little success on syphilitic sores. Dr. Stone, (c) of the City hospital, Blackwell's Island. N. Y., reports that he has found it very satisfactory for the purpose of cleaning indolent and dirty leg ulcers and getting them in a proper condition for skin grating. Usually he says in syphilitic ulcers only about 25 per cent. give satisfactory results after grafting, but out of seven cases in which he used mercurol as a preliminary inunction he found that five turned out well. Personally I have had no experience with the preparation except as an internal medicine,but having come across this report in looking over the literature on the subject, I considered it relevant.

While the positive results have been highly satisfactory in the hundred cases of which I have spoken, it is principally on account of what may be called the negative results that mercurol is to be commended.

In other words, its chief virture is that it is a tolerable form of administering mercury. This means that it does not produce gastro-enteritis. and that it produces diarrhea only when pushed to full or beyond toleration. These symptoms can be easily controlled, and the result is that as a consequence of its non-irritating qualities, its use can be steadily perservered with until the desired results are obtained.

The importance of this will be appreciated by general practitioners as well as by specialists who have had experience with other drugs under which, as Dr. Ayres observes "everything seems to be going along all right up to a certain point, then gastro-enteritis sets in, the patient becomes very anemic and generally run down, and a change has to be made to some other medicine." The advantage of mercurol is that generally speaking you do not require to change, because none of these untoward results as a rule are produced which require a temporary cessation of the mercury and a substitution of tonics, etc. I have kept a careful record of all the cases in which I have used the drug. Instead of reporting these in details, I will give a brief summary of the results obtained and the conclusions at which I have arrived. In the first place, I have had no cases, not even one of old stubborn secondaries, in which the drug has failed to have a good effect. Secondly, in the majority of my cases the improvement has been as rapid and satisfactory, and generally more so than in cases where other methods of internal administration of mercury were pursued. Thirdly, there were only three or four cases in which I thought it well to suspend the uae of medicine for a time, in order to check diarrhea, tone up the system, etc., and in none of these could I affirm positively that the disorders referred to were directly traceable to the mercury.

Of course it may be objetted that one year's experience is not sufficient on which to base an opinion of the permanent effects of any drug used in the treatment of syphilis. This is perfectly true, but in any case the first thing to do is to control the symptoms, and that can apparently be done more satisfactorily with mercurol than with any other preparation of mercury given internally. Besides there is this to be borne in mind. We are not dealing with a new

(c) Mercurol Inunctions Prsparatory to Skin Grafting in Leg Ulcers. By William Ridgely Stone, M. D., New York. Medical Age. April, 1901.

drug, but only with a new form of administering it. There is certainly no reason for believing that mercury given in the form of a nucleid will produce results of a less durable character than mercury given in any other form. While we can never say that syphilis has been completely extirpated, I feel there is some ground for satisfaction in being able, as I am, to say that out of the hundred patients who have been treated by me with mercurol and baths only, and have been under treatment for a period of three months or longer, none show any trace of the disease except possibly a slight general adenopathy, while those now under my care are getting along as well as could be desired.

Treatment of Tetanus.

In recording the history of a case of sevire tetanus, which was cured by intradural injections of tetanus antitoxin, E. von Leyden (Deut. Med. Woch., July 18, 1901) briefly describes the development of what he considers to be the proper treatment of the disease. Von Behring introduced the serum with the belief that once introduced anyhow into the body, the results would be efficient, and therefore it was at first injected subcutaneously. The unsatisfactory results led to its application into the vascular system, and later into the cerebral dural cavity, but without the hoped-for results. It was found that in fatal cases of the disease, treated in one of these ways, the blood was incapable of producing tetanus in mice, although when not so treated it was capable of producing tetanus. On closer investigation, however, it was demonstrated that the spinal cord and the cerebro-spinal fluid contained tetanus toxin, and when these were injected into mice, the animals died of tetanus. Thus the subcutaneous or intravenous injection of the antitoxin, although capable of rendering the toxin in the blood harmless, was powerless to attack the toxin in the cerebro-spinal fluid. Von Leyden's assistant, Jacob, therefore suggested and applied the method of intradural injection, and the trial case recovered. Other observers also attempted this method, and Von Leyden finds reports of 5 cases which died and 5 which recovered. His new case had a temperature of 105.8 deg. F., a temperature which, he says, is always followed by a fatal issve in tetanus. The treatment was begun on the third day, and consisted in an intradural injection of 5 c cm. of antitoxin (equal to about ¼ gram of solid antitoxin, and therefore about one-eighth or the usual subcutaneous dose) after 10 c. cm. of the fluid had been withdrawn, together with injections of morphine and the exhibition of chloral. The temperature sank on the same day to 101.3 deg. F., and on the next day to 99.3 deg. F. The fall in the temperature he regards as a distinctly life-saving result of the antitoxin. On the third day of treatment the injection was repeated. Of the other interesting points in the case he points out that (1)the patient had two years previously had a mild attack of "head" tetanus; this points to the inability of a given attack to protect against subsequent infection; (2) although working in a stable, no wound was present, and therefore the point of entry of the bacilli is unknown; and (3) no tetanus bacilli were found either in the vomit or in the blood. On the other hand, mice injected with his cerebro-spinal fluid slowly developed symptoms of tetanus, that is, after six days.

Substitution Extraordinary.

Sabstitution extraordinary is illustrated in a history supplied by the Farben Fraken of Elberfield Company, who have been able to ferret out a most despicable adulteration of chemicals practiced by a band of drug counterfeiters, Not only were the products themselves imitated, but the boxes, lables, etc. Druggists buying aristol, phenacetin, sulfonal, trional, etc., should be on their guard against sophisticated articles. The protest of the manufacturers rightly contends that "both the physician's reputation and the welfare of his patient are at stake in this mntter. When, therefore, we protect ourselves against these criminal practices, we believe that we are equally protecting the medical profession."—*Editorial in Medicine, Dec. 21, 1901.*

We call attention to an article which we publish this month, relating to the physiologic action of petroleum. These experiments are along the lines carried out by an eminent Englih physician and the petroleum preparation used was Angier's Petroleum Emulsion, which is the original and the first petroleum placed before the medical profession. Angier's Petroleum Emulsion is to-day prescribed by leading physicians of this country and Europe and its value in therapeutics is thoroughly established.

A Georgia farmer made $100 from an acre of watermellons and the nearest doctor made $200 from the same acre.

Charlotte Medical Journal.

EDWARD C. REGISTER, M. D., Editor.

No. 36 South Tryon Street, - - - -

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SUBSCRIPTION. $2-50 PER YEAR,

THE NEGRO AND MEDICINE.

Whether the negro can, with succes and in justice to himsel as well as with propriety to the cause, enter the profession of medicine is a problem that is at present receiving much attention by thoughtful minds of those of the profession in the United States.

We published in our January issue a very strong and ably written article upon this matter by Dr. W T. English, of Pittsburg, Pa. It is a fact which must be met by every individual in the profession who has a responsibility with the negro. It is a matter well worth the earnest study of the philanthropist, humanitarian and particularly every member of the medical profession.

The welfare and progress of the negro in the United States is a subject that has called forth much thought and earnest consideration, since his advent as a citizen of our nation.

That such a matter is of importance is pertinent, as it enters seriously into the wellbeing of our country. The negro as a citizen since the emancipation dropped the shackles and relieved him from bandage, is a problem that has confronted the minds of all of our great leaders; in fact every citizen who feels an interest in this land of freedom must feel an interest in the progress of each component part which makes up this nation. Dr. P. B. Barringer, of the University of Virginia, in an article entitled "Negro Education in the South" which was published in the Educational Review, March, 1901, says: "Those of us of the South who have elected to abide by the South, must for that reason, it for no other, take a proper natural interest in any specific class of its people which numbers nearly forty per cent. of its population. It matters not how insignificant this people may be, when measured by economic standards, or how humble they may be socially, nor how impotent, politically; so long as they constitute forty per cent. of the population, they are a factor which must be taken into serious account whenever we think of the South and its future. If this forty per cent., the negeo race, improve, the South to that extent will improve; if it goes backward, it will carry the South with it, or failing in this, it will demand as the price of progress an expenditure of energy on the part of the whites which no people can endure."

In tracing backward the history of the negro race in the United States, we find his home that of Africa the "Darkest Continent," which has continued as such even to the present time. Dr. Berringer in an address entitled "Sacrifice of a Race" which he delivered before the Race Conference, at Montgomery, Ala., May 10, 1900, well says: "A race of savage blacks, the lowest of human kind, with fifty centuries of unbroken barbarism behind them, were torn from the native tropical land and transported to a republic, founded as an asylum for those seeking to be free!"

With Africa as his home we have a history of a race that has never known the slightest indication of ability to improve in any manner whatever. Ages and ages of savagery and canibalism, without the slightest advance from that benighted condition. In no instance has there been any improvement in intellect manners and morals except where the white man has exerted his civilizing influence. Withdraw that influence and but a short period elapse until the race drifts back into savagery and degredation. As a race it has not the power within itself to rise and maintain any elevation mentally or morally from the black depth of barbarism. Brougth to this country and placed under the environments created by his white master and model, he had by the influence whether he was under during two hundred years and more of bondage greatly improved in mental capacity and morals. Notwithstanding all this, since the guiding care and influence of the white master has been withdrawn we may well ask what has been the result, in the negro race of the United States? The consensus of opinion and the facts gathered from statistics by the proper authorities are that the race is retrograding rapidly. Dr. Barringer in the same address just referred to, says: "I may state that as a Southerner and a physician, I am acquainted with the physicians of the South, and it is the almost universal opinion of men who should and do know more of the negro than all other classes combined, that the negro as a race, is steadily degenerating both morally and physically." In conclusion he says: "All things point to the fact that the negro as a race is reverting to barbarism with the inordinate criminality and degredation of that state."

This may be easily recognized and veri-

fied by everyone who has any oportunity whatever to observe their course or progress where they are living to an extent in a herded manner.

With such a record as the origin and with the present tendencies, where would we expect to obtain or find that condition of ability in the individual necessary to fit him for the practice of a profession requiring the most exacting qualities of mind and energy.

It is fully recognized that there exists a decided difference between the brain formation of the African and that of the white man. The history itself of the progress of the two races compared, would, alone, designate a radical difference in the capacity and ability of the one over the other. Of this Dr. English speaks definitely in the beginning of his article.

When it is fully recognised that in this country there is an excess in the necessary number of physicians already, as was discussed editorially in the December number of this Journal: Why should any encouragment be given to members of a race which bears none of the attributes which go to fit a man for this most important of all callings; the nature of which necessarily demands that only the selection of the fittest should essay to enter. A calling requiring such high mental qualifications that only the decendants of the most cultivated of the Caucasian race of the human family of all the races of mankind, have acquired a proficiency.

A calling where the utmost safeguards are inaugurated and whereby only those especially fitted and adopted for this the noblest of all professions are allowed to enter. As Dr. English well remarks: "It becomes the proper course to discourage the negro's medical ambition. Teachers who direct their negro pupils into the medical path are guilty of a many-sided wrong." By all means let every physician to whom any young negro may apply for advice as to his entering upon a medical course, be that physician a white or a negro man in practice at present, advise against such desire on part of the negro applicant. If he has an earnest ambition, direct him rather to use that enthusiasm in some avocation whereby success and good results are more surely to crown his efforts.

Since it is recognized that such a large per centage of negroes who enter upon a course of medicine drop out before finishing that course and that an exceedingly small proportion of those completing the course ever acquire more than moderate success, the injustice done and loss of time and capital to the very large number that fail to profit by their efforts in any manner, becomes especially apparent; and the wisdom of the advice against undertaking a course fraught with so much hazzard, even to those who might be measurably successful is altogether evinent. It were well even that none enter the field of medicine, and every effort should be exerted to prevent his doing so, since that succes which they might acquire through any especial strength of endowed or acquired mental power, would give them more successful results in other avocations.

The philanthropist and the humanitarian will ask what of the negro race, if he is degenerate morally and physically at this rate and what is the necessary needful aid for his true welfare? That is an important query and it is a politic subject to study and for which to evolve a true solution. The solution is an important one for the South, it is of importance to our whole country. We cannot affrod to have the negro continue to degenerate in our midst; we cannot afford to have the race grow weak, become criminals and pass out of existence; as his present course surely point, unless he is rescued. The South needs the negro, the whole country can find use for the negro as a faithful industrious, and law abiding citizen.

His moral and physical condition needs the earnest attention of the philanthropist, the humanitarian and in fact every individual who can render aid to a weak and failing race. The education that is given him should be such that he will become an industrious citizen, to be useful and frugal that he may care for self and family; that his industry may add to the welfare of the state of which he is a citizen, by his labor. Dr. Barringer in an address entitled "The American Negro, His Past and Future." said: "Let us consider the training of the negro children in slave time and now—what is the difference? The training of the negro is now in the hands of the negro, and before it was in the hands of the whites. Put the training of this foundling of the State in the hands of those who hope ultimately to get back the pay for his keep, and self interest will see to it that he becomes able to pay." They should be trained to become successful tillers of the soil, apt in domestic services and in some of the industrial branches of labor. In this way he can lay a foundation for his gradual improvement and upward course towards more civilized and moral citizenship.

So much for his mental care. In the meantime a physical demoralized race needs help. With a constitution which feebly resists the effects of disease, the race is being

rapidly disseminated. The death rate has rapidly risen during the past thirty-five years. Typhoid, tuberculosis, and syphilis and other diseases have become quite general, annually making extensive inroads upon the younger generations of the negro. With habitations in most cases of a most desolate nature, hurded in close quarters, without the least consideration or knowledge of dwelling or personal hygiene Their hovels are nests of squaller. These conditions should be corrected; the profession should instruct them simple plain laws of cleanliness and health. Cities and corporated towns should enforce rules of sanitation in their dwellings, in construction and care. Hospitals and sanitariums should be erected or provided and maintained where the negro sick may have proper treatmnet and nursing; a condition that is impossible to be provided for in their homes, crowded and badly ventilated as they exist. Dr. Seale Harris, of Union Springs, Ala., in a paper before the Macon County Medical Society, July 2, 1901 (American Medicine, Sept. 7, 1901) entitled "'The Future of the Negro From the Standpoint of the Southern Physician," says: (Quoting from his report as health officer) "The negroes as a class have absolutely no conception of personal hygiene, and the great majority of deaths (more than 75 per cent.) among them occur without medical attention and almost without any effort whatever to stay the hand of disease." Here the philanthropist can be of the greatest aid to the race. Instead of endowing institutions where they may receive a classic education, endow rather hospitals and sanitariums where the sick and afflicted may receive the proper treatment and care which they so badly need. The negro race is needing and will require an inestimable amount of medical care during the next half century and more.

Let everything be done for the negro which is proper that he may become a strong physical, moral and industrious individual. But as for entering the profession of medicine there is neither room nor need for him.

HABITUAL CONSTIPATION AND ITS TREATMENT.

Among the more frequent abnormal conditions with which the general physician has to deal in his every day practice is that of habitual constipation. In fact, it is the most constant condition met with, unless we except dyspepsia, and yet it is usually accompanied by habitual constipation.

The condition which we make especial reference to is that sluggish, inactive condition of the muscular coats or layers of the alimentary canal which is the usual condition of the cases. We exclude any torpid condition which may result from acute disease or of any condition requiring surgical interference, or as a reflex from the inaction of any of the important glandular organs leading to constipation.

Recognizing the condition, the important query presents itself, what is the best method to use in dealing with the condition.

The Materia Medica has been exhausted in the search for drugs that will overcome the condition. The lay in its effort at self-care have used every substance having a cathartic effect or even reported as having a cathartic effect. Cathartic pills, powder and teas have been taken *ad libitum et ad nauseum* by the self-prescribers until they have become slaves of cathartics. Millions of money have been made by patent medicine firms in supplying this want, and yet the evil is with us. The effect of such a course has only the result of producing drug takers instead of curing the abnormality. Many methods are used by the profession and many have been wanting. There is one method which is undoubtedly the surest way to overcome this condition, a method which might be called the rational or physical method.

We are all beings of habit, in that thought we have what is recognized to-day, as the most effective method to overcome the condition of habitual constipation. This method is advocated, urged and used by our best authorities in general practice. Let the patient be instructed to visit the closet just after breakfast, at a certain hour each morning, to allow of no deviation from this rule. Upon retiring each evening to take a glass of water; as early after rising in the morning to again drink a glass of water. This course of drinking will have to be cultivated by some persons before they are able to take a full glass of water at each time.

Let the diet be largely vegetable and fruit. When there is a most pronounced case of habitual constipation, something as a crutch will be necessary, until the habit is formed. This may be secured by the pill of aloin 1-5 gr., belladonna ext. 1-10 gr. strychinia sulph. 1-60 gr.. and ipecac ext. 1-5 gr. This pill must be made of the purest of drugs. At first the pill must be used regularly night and morning; after a week or more one at night only, still later, one every second or third day and then discontinued altogether.

This method or plan persisted in will effect a cure in nearly every case of habitual constipation.

CARBOLIC ACID GANGRENE.

During the past five years or more there has been a tendency in the profession to return to the use of carbolic acid as an antiseptic in treating wounds. This has been especially the resort in the case of burns, a form of wounds of which there are frequent occurrences.

The medical literature has recently contained history of accidents in the use of this drug, when used in this way, by producing gangrene.

The Therapeutic Gazette for Nov., 1901, contains an editorial upon this subject and in it reference is made to a previous editorial on the same subject. It also refers to an illustrated article in the American Journal of the Medical Sciences, which showed extensive gangrenous changes in the fingers, produced by wrapping them in dressings with a weak solution of carbolic acid. Also the Munchener Medicinische Nochenschrift for Aug. 6, 1901, mentions several cases. In none of these cases was the strength of the solution above two per cent. and in each of the cases the dressing had been applied to injuries of the fingers.

Dr. John G. Sheldon in Medical Record, for Nov. 16, 1901, describes a case of gangrene following the application of a weak solution of carbolic acid. He thinks the explanation that the weaker solution fails to produce eschar is not satisfactory as the cause of this result.

It appears that all of the untoward results have occurred in cases where carbolic acid solution had been used in injuries to fingers whether such accidents have occurred from the application of the drug in weak solution to any other parts we have not observed any such record. The reason for such results by this old and well known drug is difficult to see.

Hare in his "Practical Therapeutics" says: The use of carbolized spray over wounds has been found to do more harm than good and it ought never to be employed.

Here is an opportunity for the laboratory to investigate and explain. Carbolic acid is undoubtedly a well recognized antiseptic and if there are any special dangers connected with its use in any form, this should be thoroughly understood. If there are any means by which the dangers may be averted it should be made well known, and it should be made practicable to the entire profession.

Let all those who have had untoward results in their practice when using this drug as an antiseptic, report the matter to the medical press, so that its behavior may be fully established.

A MEDICAL UNIVERSITY TO BE ESTABLISHED IN RALEIGH, N. C.

The trustees of the University of North Carolina at one of their recent meetings decided to establish a medical department to be located at Raleigh. For many years the University has been giving a two years' course in Anatomy, Chemistry and Physiology. This purely preparatory school gives no certificates or diplomas. Now they propose to organize a regular faculty and establish and equip a school with the privilege of granting diplomas.

Dr. Hubert A. Royster has been elected Dean and it is now planned to open the institution next September. So far Drs. H. A. Royster, R. H. Lewis, W. I. Royster, W. A. Knox and K. P. Battle, Jr., have been selected as professors. Others will be added to the faculty later on.

This move on the part of the trustees of the University and the physicians who are interested is a wise one. It is in the line of progress and will do the State good and will benefit the medical profession throughout this section of the country.

We hardly thought that a measure of this kind would have interested some of the physicians who are connected with it. Only a few years ago a scheme of this kind was bitterly opposed when mentioned in connection with Durham and Trinity College.

THE FAMILY PHYSICIAN.

There seems to be an opinion abroad that the family physician is a thing of the past, but we are sure that in spite of the fact, that medicine of late years seem to have a tendency to divide itself into specialties, there is still, and always will be, a demand for the general practitioner. He is the backbone of the profession, so to speak; his broad, liberal views causing him to look upon disease as a maladjustment instead of a separate entity, makes him all the more essential, and without the family doctor, who, in his earnest work, keeps a watchful eye upon *true* progress. Therapeutics, the foundation of successful medicine, the corner-stone of our very existence, would disappear for ever. We need not have fear of loosing the general practitioner, for without him we could not have the true specialist.

TWENTY THOUSAND DOLLARS FOR THE SUPPOSED IMPROPER SETTING OF THE SHOULDER.

We notice in the lay press that Drs. W. J. and L. H. Love, of Wilmington, N. C., have been sued for twenty thousand dollars damage by a Mr. John W. Holmes, a conductor on the Atlantic Coast Line for the improper setting of a fractured and dislocated shoulder joint. An action of this kind is extremely uncommon in this State. We don't know the facts in this case, but usually complaints of this kind are made by unscrupulous parties who want to get something for nothing. We do know that the defendants in this case are competent and painstaking physicians.

BOOK REVIEWS.

Transactions of the Tri-State Medical Association of the Carolinas and Virginia. Third Annual Session.

The transactions of any Society that come to the reviewer's desk, eleven months after the Society convened, is not examined with that degree of interest that they often deserve. It is unfortunate that policy has been encouraged by some of the members of this Association to delay getting out the proceedings for so many months when many features of the meeting have been forgotten, and too, it is not a fair business deal to receive pay for a volume of transactions and not deliver them for several months. We know of no progressive, popular medical society that encourage such a policy. Usually a society where this indifference is so plainly shown, manifest other evidences of a lagging interest and decay. This Association was organized in this city, and at its first meeting, three years ago, it had one hundred and sixty-six members, and now, three years later, it has only one hundred and sixty.

At its first meeting twenty-six papers were read, and intelligently discussed at its third meeting only seventeen papers were presented, several of which were read by title.

Out of over five thousand physicians who reside in the Carolinas and Virginia only one hundred and sixty have interested themselves in this organization.

This must be disappointing to its friends, if they will consider the effort that has been made to secure new members.

Practical Medicine. By F. Mortimer Lawrence, M. D. 521 pages. 8vo. Cloth, $3.00

Dr. Laurence has produced a book on practice that will command the respect of all physicians regardless of school. Indeed, it could not be otherwise, for the author has strictly followed the key-word of his title page and made his book severely practical. To cover all the field and he had no room for any padding or debatable matter. He has given the profession the latest methods and procedures of modern medicine, all the tests and latest methods. Therapeutics necessarily occupy but a limited space, a list of all to be consulted being about all save in a few instances. We predict that it will take its place as one of the authoritative works of the century.

Boericke and Tafel, of Philadelphia, are the publishers.

Variola, Vaccination, Varicella, Cholera, Erysipelas, Whooping Cough, Hay Fever, Variola (including Vaccination). By Dr. H. Immermann, of Basle. Varicella. By Dr. Th. von Jurgensen, of Tubingen. Cholera Asiatica and Cholera Nostras. By Dr. C. Liebermeister, of Tubingen. Erysipelas and Erysipeloid. By Dr. H. Lenhartz, of Hamburg. Whooping Cough and Hay Fever. By Dr. G. Sticker, of Glessen. Edited, with additions, by Sir J. W. Moore, B.A., M.D., F.R.C.P.I., Professor of the Practice of Medicine, Royal College of Surgeons, Ireland. Handsome octavo volume of 682 pages, illustrated. Philadelphia and London: W. B. Saunders & Co., 1902. Cloth, $5.00 net; Half Morocco, $6.00 net.

The articles included in this volume treat of a number of diseases second to none in importance, whether regarded from the standpoint of Preventive Medicine or as the case of widespread sickness and death. Although the excellence of the German work and the detailed and comprehensive manner in which the respective authors had dealt with their several subjects left comparatively little to be added, the editor has not hesitated to amend the text whenever necessary, and has also embodied the results of his personal experience, gained during over thirty-three years.

One of the most timely articles included in the work is that on Variola, including Vaccination and Variolation. Dr. Immermann's monographs on these subjects, now of vital interest, especially in the United States and Great Brittain, have probably never been equalled for circumstance of detail and masterly argument.

The other articles, each by a German specialist of recognized authority, are also skillful expositions of the particular diseases under discussion. The entire volume be-

ing edited by a specialist of acknowledged ability, the work, it will be seen, has been brought precisely down to date. It is, indeed, a magnificent contribution to the literature of medicine.

American Edition of Nothnagel's Encyclopedia. Typhoid and Typhus Fevers. By Dr. H. Curschmann, of Leipzig. Edited, with additions, by William Osler, M. D., Professor of the Principles and Practice of Medicine, Johns Hopkins University. Handsome octavo of 646 pages, illustrated, including a number of valuable temperture charts and two full-page colored plates. Philadelphia and London: W. C. Saunders & Co. 1901. Cloth, $5.00 net; Sheep or half Morocco, $6.00 net.

In his preface to this volume Dr. Osler says "The original edition is recognized by all special students of typhoid fever as the standard authority on the subject." This statement has at least the weight of probability in its support, for here are almost five hundred pages devoted solely to a discussion of typhoid fever, written by the eminent H. Curschmann, edited by the no less distinguished William Osler of this country, and translated into English by Alfred Stengle of the University of Pennsylvania. No work of the kind has ever been offered to the profession with higher recommendation.

In preparing the American edition Dr. Osler has made important additions to many of the chapters. In doing so he has freely consulted American literature. For example, Mallory's work on the pathology of the disease, Thayer's study of the state of the blood, and W. W. Keen's monograph on the surgical complications have all been utilized.

The Medical News Pocket Formulary, New (4th) Edition. Containing 1700 prescriptions representing the latest and most approved methods of administering remedial agents. By E. Quin Thornton, M. D., Demonstrator of Therapeutics, Pharmacy and Materia Medica in the Jefferson Medical College, Philadelphia. New (4th) edition, carefully revised to date of issue. In one wallet-shaped volume, strongly bound in leather, with pocket and pencil. Price, $1.50, net. Lea Brothers & Co., Philadelphia and New York, 1902.

The demand for a fourth revision within four years testifies that this manual is a most helpful assistant to the busy physician. The opportunity afforded the author has been utilized to introduce those newer remidies which have successfully stood the test of practical experience and to add certain formulæ containing older drugs under new combinations which have been found to possess marked therapeutical efficacy in particular conditions.

Among the formulæ thus added may be noted the use of hydrogen peroxide in the obliteration of powder stains, that of urea in the treatment of lupus, the local application of guaiacol in promoting the absorption of serous exudates, the use of apomorphine as a sedative in alcoholic delirium, of adrenalin as a hemostatic, of chloretone and orthoform as local anesthetics, the newer tannic acid compounds as intestinal astringents, the organic compounds of silver and of arsenic as substitutes for the more poisonous inorganic salts of those metals, etc.

The arrangement of the text is planned to conduce to the greatest convenience. Diseases are arrainged alphabetically, and under each are given efficacious prescriptions for simple cases as well, as for the various stages and complications. Indications as to the conditions under which each formula can be advantageously used are appended. All quantities are expressed in the ordinary and metric systems. Following the tendency of modern medicine, attention is paid to palatability and pharmaceutical elegance, yet without sacrifice of therapeutical efficacy.

International Clinics. A Quarterly of Clinical Lectures and Especially Prepared Articles on Medicine, Neurology, Surgery, Therapeutics, Obstetrics, Pediatrics, Pathology, Dermatology, Diseases of the Eye, Ear, Nose and Throat, and Other Topics of Interest to Students and Practitioners. By Leading Members of the Medical Profession Throughout the World. Edited by Henry W. Cattell, A.M., M.D., Philadelphia. With Regular Correspondents in Montreal, London, Paris, Leipsic and Vienna. Volume III. Eleventh Series. 1901. Price, $2.00. Philadelphia: J. B. Lippincott Company. 1901.

International Clinics is, if possible, improving with each volume, and becoming of great practical service to the practitioner, for whom the original and specially prepared clinical lectures and articles on treatment by the foremost medical teachers of the world, answer in many respects as a continual post-graduate course. Considering the character of the literature, the illustrations and the fine book work in general, the price is extremely low. Of the thirty-

one seperate contributions, the first one, on "Phototherapy After Finsen's Methods," by Valdemar Bie, laboratory assistant in Finsen's Institute at Copenhagen, is perhaps the most noteworthy. It gives a full and scientific account of technique, reasons and results with many photographs taken before treatment and after cure.

The Practical Medicine Series of Year Books. Comprising ten volumes of the year's progress in medicine and surgery. Issued monthly. Under the general editorial charge of Gustavus P. Head, M.D., Chicago. Vol. 1. General medicine. Edited by Frank Billings, U. S., M.D., with the collaboration of S. C. Stanton, M.D., October, 1901. Price of the series $7.50, of this volume $1.50. The Year Book Publishers, 40 Dearborn St., Chicago, Ill.

This series is designed as an inexpensive method of keeping the medical reader informed of the progress of medicine in its several directions. The first volume is devoted to general medicine and contains an excellent digest of new views and facts which have been brought out recently in this department. It includes diseases of the respiratory and circulatory organs, infectious and constitutional diseases, and a chapter on miscellaneous diseases. The series is recommended to those who desire information on any topic in medicine.

This volume contains 270 pages with several beautiful illustrations and a complete index.

Reference Hand-book of the Medical Sciences. Embracing the entire range of Science and Practical Medicine and Allied Science. By Various Writers. New Edition, completely Revised and Rewritten. Edited by Albert H. Buck, M.D. Complete in eight volumes. Vol. III. Illustrated by Chromolithographs and 676 half-tone and wood engravings. Wm. Wood & Co., New York.

To commend the work as it deserves without seeming fulsome is difficult. It is perhaps sufficient to say that as an encyclopedia of medicine the Reference Handbook is pre-eminent by reason of its thoroughness, reliability and typographic excellence. The list of celebrities who have written for the present volume reads like a chapter from the peerage of medicine, if there be such. Among the important subjects treated at length are Chloroform, Chorea, the Coelom, Climate, Cranial Nerves, Dietetics, Dysentery, Ear Diseases and Electricity, in addition to thousands of others.

It contains 860 pages and is printed on beautiful white paper.

Practical Medicine Seriess. Vol. 2. Nov., 1901. Genral Surgery. Edited by John B. Murphy, M. D., Chicago. Price $2.00 The Year Book Publishers, 40 Dearborn street, Chicago.

The second volume of this series is devoted to the subject of general surgery, and is under the editorship of Dr. John B. Murphy. It contains a summary of recent progress in surgery and fairly covers the whole field. There are a few illustrations. The modest price of these books and the usefulness of their character commend them to the practitioner, and a persual warrants an endorsement. The book contains over 500 pages and is substantially bound.

Transactions of the Association of American Physicians. Vol. XVI. 1901.

This volume is substantially bound in cloth and contains 730 pages. It is the largest volume of proceedings the association has ever produced. It contains very valuable papers and the discussions are of a very high order.

Dr. S. Solis Cohen of Philadelphia is Recorder and Editor.

In the compiling of this volume he has shown good judgement.

Transactions of the Medical Society of the State of California. Vol. 34, 1901.

The proceedings of this society, came to us this year in a handsome cloth covered volume of 419 pages. It contains many valuable papers and interesting discussions.

Dr Wm. J. G. Dawson, St. Helena, is president, and Dr. George H. Evans of San Franciscois is secretary. He has carefullyedited the book and deserves credit for his pains taking and intelligent work.

Transactions of the New Hampshire Medical Society, 1901.

The proceeedings of this society fills a volume of 350 pages. It is cloth covered and makes a very handsome book. It would be better if the title was printed on the back instead of the side. Its reading matter is interesting and from a scientific standpoint will not suffer when compared with the proceedings of any other State society in this country.

Dr. Granville P. Conn, of Concord, is secretary.

LITERARY NOTES.

The leading article in the February Forum is a discussion of "The Settlement with China" by Mark B. Dunnell, who is not very optimistic as to the out come of the action taken by the Western nations after the Boxer rising. Major J. H. Parker answers the question, "What shall we do with the Philippines?" by recommending their cession to some European or Asiatic power. An account is given by Prof. Kelly Miller of "The Expansion of the Negro Population," with abundant statistical information respecting the present condition and distriubtion of the colored race in this country. President F. P. Graves, of the University of Washington, emphasizes "The Need of Training for the College Presidency." John T. Buchanan, dealing with the problem "How to Assimilate the Foreign Element in our Population," reguards the education of the children of alien immigrants as the only method likely to be effectual. "The Sinking Fund and the Public Debt" is the subject of an important financial article by H. S. Boutell, Member of Congress for Illinois, who traces the history of the payment of the national debt from the establishment of the Government to the present time. Dr. Gilbert Reid contributes a character sketch of the late Li Hung Chang. "The Reformation of Criminals" is discussed by J. Franklin Fort, Justice of the Supreme Court of New Jersey, in a paper which recommends the employment of systems of conditional pardon and parole, and the institution of reformatories for young offenders. Merrill A. Teague, assistant to Admiral Schley's counsel, writes on "Errors Touching the Schley's Court of Inquiry." and maintains that the principal error was a "fatal misconception, or. rather, confusion of duty" respecting the function of the Court. Other articles are: "The Young Man with Nothing but Brains," by Truman A. De Weese; "Wanted—An Opposition," by Alan P. Gilmour; and "The Care of Dependent Children in Indiana" by W. B. Streeter.

Are England, Scotland and Ireland destined, ultimately, to become a part of "The United States of America and Great Britain"? is the startling inquiry which William T. Stead makes in the January Cosmopolitan. He has been one of the prophets of Great Britain, and has, at all times, been able to see in advance of his contemporaries, as events have proven. He has been studying the new conditions brought about by the industrial combinations and reaches the conclusion that England and the United States are destined to be more closely united and that as soon as the English people wake up to the absurdity and general usefulness, as has been shown in the Boer War, of a king and aristocracy, the trend will be immediate in the direction of a union with the people of the United States. However much one may differ from Mr. Stead, his speculations will be found vastly interesting. He is the first British subject who has had the courage to suggest such an outcome.

Jonathan Hutchinson, F.R.S., General Secretary of the New Sydenham Society, has requested Messrs. P. Blakiston's Son & Co., of Philadelphia, the American agents of the Society, to announce the publication of "An Atlas of Clinical Medicine, Surgery and Pathology," selected and arranged with the design to afford, in as complete a manner as possible, aids to diagnosis in all departments of practice. It is proposed to complete the work in five years, in fasciculi form, eight to ten plates issued every three months in connection with the regular publications of the Society. The New Sydenham Society was established in 1858, with the object of publishing essays, monographs and translations of works which could not be otherwise issued. The list of publications numbers upwards of 170 volumes of the greatest scientific value. An effort is now being made to increase the membership in order to extend its work.

The novel of the month in Lippincott's for February is by the fertile and delightful John Strange Winter, who never grows dull and never deceives. "The Standings," her latest tale, is about a poor painter (in all senses) and his poor family of girls, one of whom marries another painter who really loves her sister. Anyone who has ever read a John Strange Winter tale will know what that inventive pen can make out of such a plot. It's rapid, romantic and real all through.

ABSTRACTS of the Leading Articles of the Month.

Appendiceal Fistula.

Deaver, (Philadelphia Medical Journal) notes that the causes of fecal fistula may be specifically divided into the following.

1. Slipping or sloughing of a ligature used to ligate the stump of the appendix

one or the other of these accidents may occur no matter what method is used to close the wound in the cecum caused by the removal of the appendix, for even if the cecum be repaired by several rows of Lembert sutures, infection of these sutures may cause enough sloughing to open a large fistula in the cecum. This variety of fistula may appear immediately after operation or even ten days or two weeks later.

2. Sloughing of an appendix left in situ may cause an especially bad fistula, as here there is not only the opening into the bowel, but also the appendix remaining as a foreign body.

3. Ulceration into the bowel at the point of adhesion of an inflamed appendix. This in an effort of nature to relieve trouble by drainage of the appendix into the bowel, removal of the appendix leaves the opening into the bowel which may be overlooked.

4. Pressure necrosis of the bowel from an abscess or from the pressure of a drainage tube or gauze left in at the time of operation.

5. Necrosis of the bowel from interference with its nutritive blood supply either from pressure on the mesentery or from septic emboli in the mesenteric veins. Fistulae due to this cause are most common in the cecum or ascending colon. This accounts also for many deaths from absorption of septic material.

6. Tearing the softened bowel in feeding adhesions at the time of operation.

7. Stripping the serous coat from the bowel in freeing adhesions. This is a very common cause of fistula and one which we must always be upon our guard against, most of the nutrition of the bowel is derived from the cost and stripping this off usually causes a necrosis of the underlying bowel.

As to treatment, fistula of the small bowel usually requires resection, as a simple repair, if the wound was extensive, would probably reduce the calibre of the bowel to a dangerous extent, and the bowel involved is often in so unhealthy a condition that sloughing would be likely to follow. His preference in this work is for an end-to-end anastomosis without mechanical appliances. Fistula of the large bowel may either be resected or repaired, according to the judgment of the operator in each particular case. In some instances, in which the cecum has been very much injured, it may be wise to do a lateral anastomosis between the colon and the ileum. This anastomosis may be done either with the Murphy button or needle and thread alone, according to the fancy of the operator. Should a resection of the large bowel be necessary his preference is for an end-to-end union with needle and thread alone.

The Amount of Diphtheria Antitoxin Required.

Park (Journal of the American Medical Association) says that the local condition in children in markedly severe cases did not clear up as rapidly with 1,000 as with 2,000 units, and in two or three cases he believes death would have been prevented by larger doses. In several other cases better results would have been obtained by 3,000 to 5,000 units. Very large and repeated doses of antitoxin somewhat increase the liability to serum complication, but he thinks it correct to say that the increase in serum effects from very large doses is much less than is generally believed. Hhe concludes that antitoxins are, in all probability, substances having the properties of globulin. They cannot, without our present knowledge, be separated from that portion of the blood-serum which in susceptible persons produces disagreeable effects. The fact, however, that the antitoxin serum from some horses is scarcely at all deleterious, leads us not to give up the attempt of procuring the serum either by selection of animals or by the treatment of serum itself, which, while antitoxic, is not to any important degree deleterious. For routine practice at present we can scarcely do better than to follow the general plan of using the serum from all healthy animals, which have remained healthy during the period of immunization, and which have in their blood a sufficient concentration of antitoxin. This should not be less than 200 units in each c.c.

The Action of Condensed Light as a Therapeutic Agent for the Skin.

Ravogli, in a recent issue of the Lancet Clinic describes the Lortet-Genon modification of Finsen's apparatus. It consists of an arc light and the rays pass through a small condenser. The lenses are of quartz, and water circulates in them, so that the heat rays are cut off, while the chemical rays, blue, violet and ultra-violet pass through. Ten, fifteen or twenty minutes' exposure suffice at a sitting. Finsen establishes the time in which to accomplish the cure of lupus at from four and one-half to six months, It is necessary to have the patient under observation for a long period, and in case of relapse to apply another treatment. Only 2 or 3 per cent. of the cases are entirely refractory. The plastic results are the most satisfactory because the treatment is essentially conservative. The

apparently healthy parts surrounding diseased spots can be included in the treatment without fear of any scar. There are no unfavorable secondary effects. The process does not cause any pain whatever. In cases very much extended and deep, Finsen advises that the treatment begin with the application of a salve containing ichthyol, salicylic acid and pyrogallol, according to Besnier, and when the old tubercles are well necrotized by the action of the salve, the light is applied, diminishing in this way the length of the treatment Finsen has already reported 553 cases of lupus vulgaris treated with his method with satifactory results. The application of the light, however, has not been limited to lupus alone, but has been used in many other dermatoses.

A New Operation for Retroversion of the Uterus.

Dr. J. D. Bissell in a recent issue of the American Journal of Obstetrics and Disease of Women, describes a new operation for retroversion of the uterus as follows.

The abdomen is opened by the median incision. If pelvic adhesions exists they are broken up and the attached organs freed, and if the tubes or ovaries are diseased they are removed. The uterus is then grasped at the fundus with the volsella forceps and pulled upward. In order to form an exact idea of the extent of relaxation in the round ligament, a suture, on a small, round-pointed needle, is first passed from behind forward through the round ligament at the point about one-half inch from its attachment to the uterus; the same suture is again passed, but in an opposite direction, through the round ligament at a point about one inch from its first insertion. A similar procedure is followed on the other side. Then these temporary sutures are tied the round ligaments become looped and an exact idea is formed as to the amount of round ligament to be resected. If the tension on the ligament is found to be too great section is made inside the loop. If not sufficiently taut the section is made outside the loop.

Another preliminary but essential step is to pass a suture immediately under the round ligament about one-half inch and to the outer side of the loop. This, when tied, completely encircles the round ligament and prevents its end from retracting when the section is made. It also facilitates the handling of the ligaments when introducing the permanent sutures. The same step is taken on the other side of the loop about one-quarter of an inch from the uterus, but the latter is not so essential as the former. A section of the round ligament is then made inside or outside the loop as is found necessary. The temporary suture forming the loop is then cut and this section of the round ligament is dissected away from the broad ligament. The artery of the round ligament is grasped and tied if severed.

The next step is the insertion of the permanent sutures and the adaptation and adjustment of the raw surfaces. The first suture is passed or a round-pointed needle from above downward through the centre of one of the round ligaments and then through the outer cut end from below and upward.

Two other sutures of the size are passed, one on each side, but only half-way through the ligament, which serve, when tied, to keep the ends in exact position. The sutures in the round ligament are not tied until the raw surface of the broad ligament made by cutting away the resected portion is disposed of. This raw surface is parallel with the course of the round ligament, but is sewed together with No. 1 catgut on a line at a right angle to its original direction. The suturing of this surface should be done before the round ligament sutures are tied, and in the following way: With a tissue forceps grasp the broad ligament on the under surface midway. A suture is passed at this point and continued along the denuded edges to the middle of the opposite side. It will be found that the suturing of the broad ligament in this way brings the ends of the round ligament into close apposition. The permanent sutures that have been passed through the ends of the round ligament are then tied and the operation completed.

A Clinical Classification of Insanity.

F. X. Dercum, M. D., (The Journal of Nervous and Mental Disease, September, 1901) is convinced that the only classification of insanity of value to-day is clinical: pathology has as yet little to offer. Insanity is better approached from the standpoint of practical medicine.

Delirium is one of the most common and elementary facts of medicine. Its abnormal and perverted mental activity, with illusions, hallucinations, confusion, hurry of thought, fleeting and fragmentary delusions, incoherence—are present in all forms of delirium — whatever be the origin, though varied by the cause, as for instance alcohol or some special drug.

Deliria naturally seperate themselves into febrile forms. The febrile deliria are those which accompany the various acute infections, the exanthemata, and the various

acute visceral diseases, such as pneumonia.

The afebrile deliria are those met with as a sequelæ of various infectious diseases, as result of various intoxications, and after trauma shock, also after one of exanthemata, in the post febrile period, as for example typhoid fever. Lead and alcohol are examples of afebrile delirium.

Under febrile deliria must be included the so-called delirium grave, or acute delirious mania, as it is called. This may be called specific febrile delirium, in contra distinction to the simple febrile delirium and afebrile delirium.

Delirium is acute mental confusion of relatively short duration—from a few hours to a week or so. Prolonged confusion, such as occurs after infectious diseases, is not uncommon. It occurs typically after typhoid fever, influenza, acute articular rheumatism, the puerperium, prolonged exhaustion, surgical shock.

Its causation is double, toxines of infection and profound and persistent exhaustion,

This is the confusional insanity of the books, varying in minor points, but alike in the essential features.

If the confusion is tinged with special dulness and inaptitude, the type of stuporous insanity, or acute dementia has developed. It rarely develops suddenly.

In melancholia, mania and circular insanity we have a group of closely related affections. The hereditary in these cases is estimated at eighty per cent. The prodromal factors are similar. The tendency in each is to recovery, but also to recurrence. The emotional state dominates. Melancholia, mania, and paranoia are to be regarded as degenerations.

The neurasthenic insanities are interesting. Like simple neurastheias, their symptoms are the symptoms of chronic fatigue, resulting from unphysiological living, overwork, overstrain, and other factors inducing a chronic exhaustion.

The mental features common to neurasthenia viewed as a fatigue neurosis are emphasized or predominant in the allied insanities. Morbid fear, as shown by the various phobias, doubt and hesitation as in folie du doubte, or, as the author terms it, "Insanity of Indicision." The dificient inhibition of the neurasthenic becomes the insanity from the deficient inhibition, a better term than obsessive imperative idea, or insanity with unstable impulse.

Lastly came types of neurasthenic insanity which the writer terms insanity from deficient will, corresponding with aboulic insanity. This is closely allied to the insanity of decision.

Of dementia, nothing new is stated.

Acute Yellow Atrophy of the Liver.

Bradshaw (British Medical Journal, Nov. 30, 1901 (reports the case of a married woman aged 24 years, who was suffering from jaundice, impaired vision. and choreiform movements. Three weeks before her admission to the hospital she was seriously frightened by a large dog which sprang at her and following that, she had nausea and vomiting occasionally for 2 or 3 days. Two days later she was slightly delirious, threw her arms about and jerked her head from side to side, the tongue was tremulous and she could not distinguish the features of people about her. The temperature was 99 deg. Two days later jaundice was distinct, and she appeared to be almost blind, there was, in addition, profuse metrorrhagia. Later, the patient became cyanosed, the breathing became irregular, the liver dullness was obliterated and the splenic dulness was unusually distinct. The urine contained a moderate amount of bile, but no albumin; the proportion of urea was estimated at 2.6%, and neither leucin nor tyrosin could be found. A diagnosis of acute yelloy atrophy of the liver was made which was confirmed at the post-mortem examination. The liver weighed 25¾ ounces, the capsule was loose and wrinkled, as if it was too large for the organ and numerous yellow spots the size of a pea or less showed through it. On section, the organ was mostly a bright cherry red, with patches of yellow here and there. The substance was perhaps rather harder than normal. The kidneys appeared normal; the spleen was enlarged. The portions of the liver which appeared yellow to the naked eye consisted chiefly of hepatic cells, arranged in lobules or irregular clusters, and showing marks of degeneration in a greater or less degree. These yellow areas were surrounded by areas of red atrophy, consisting of a fine connective tissue network infiltrated with blood and containing scattered collections of bile ducts, for the most part grouped around the portal vessels. At the periphery of the yellow areas, and in the neighborhood of the portal canals, there was an extensive infiltration of small round cells. The substance of the hepatic cells was converted into irregular aggregations of fine and course granules, many contained bile pigment, and a few contained fat droplets. As a rule, the nucleus was regular and had a distinct nucleolus; occasionally it was double, but without any evidence of karyokinesis. Some of the heptic

cells contained small, round, deeply-staining bodies resembling leukocytes, apparegtly the endcytes of McPhedran and Macullum. The intralobular bile capillaries appeared to be large and their lumen was occupied by a clear homogenous material which stained pink with eosin. The areas of red atrophy were composed of a delicate feltered network of connective tissue and scattered endothelial plates, containing numerous red bloodcerpuscles. The author failed to recognize the existence of any obvious predisposing or exciting cause of the disease, unless it was the occurrence of severe mental shock.

Accidental Inoculation of Cancer in a Fresh Wound.

Cabot (Boston Medical and Surgical Journal): The patient was a man of fifty-nine, with a cancer high up on the anterior wall of the rectum. An opening was made through a Kraske incision into the rectum posteriorly. The cancer was dragged down into this opening and removed through it. During this manipulation the cauliflower-like juicy growth was rubbed about in close contact with the wound made by the Kraske operation. Two months after the operation a second was done for closure of the posterior opening in the rectum. Healing occurred by first intention, and the patient remained well for about two years. At the end of this period a hardening of the tissues behind the rectum was noticed. There was removed by operation a mass about as large as an egg, flattened in the anteroposterior diameter, and extending from the mucous membrane of the rectum backward along the sacrum, to which it was firmly attached. After a thorough examination this condition was diagnosed as adenocarcinoma with colloid degeneration. Since this last operation there have been cut out little bits of hardened tissue in the scar.

The scar in whice the recurrence took place was separated by an iuterval of five or six inches from the original seat of the growth, and the tissues between them remained healthy. Plainly, therefore, there was not a direct extension of the disease. The lymphatic vessels from the seat of the original disease run upward to the lumbar glands. This anatomical relation, together with the absence of any lympathic structure in the recurrent nodule, removes, according to the writer, any suspicion of this having been a secondary growth. The conditions, however, were favorable to transplantation, as the cancer, torn and squeezed by forceps, was rubbed for several minutes into the fresh wound.

Alcohol in Its Medical and Scientific Aspects.

Woodhead (Edenburgh Medical Journal), states that his views may be summed up as follows:

Alcohol is a narcotic poison, of which the pernicious effects are to be seen at all times, and on every hand. It is a drug which, under certain conditions, may be valuable, but it is dangerous medicament in the hands of any one but a physician; and even in the hands of the physician or surgeon its exhibition is attended with dangers that attach to the prescription of no other substance in the Pharmacopœia. These dangers are not moral only, but physical dangers, resulting from the action of alcohol on the tissues generally, but especially on those of the nerve centers. Its food value under ordinary conditions is practically *nill*, and, put in the most advantageous light, can only be temporary, and then of an extraordinarily slight and wasteful character.

A Means of Diminishing the Toxic Action of Cocaine When Used as a Local Anesthetic.

Hare (Therapeutic Gazette, December, 1901): Cocaine cannot be employed in a certain number of surgical cases because of its influence as a toxic agent upon the general economy after it is absorbed into the circulation. If used freely, it must be in very dilute solutions, and then sometimes fails to produce the required anesthesia. Some experiments which have shown that the danger of poisoning from cocaine when injected into a limb is greatly increased if the Esmarch bandage, which controls the hemorrhage, is removed immediately after the operation. If, on the other hand, this bandage is allowed to remain upon the limb for some time, and then is removed, toxic symptoms do not occur. This failure in the development of toxemia depends not upon the fact that the cocaine leaks out of the stump through the wound, but more upon the influence which is exercised upon this vegetable alkaloid by the tissues themselves.

Within the last few years a number of experiments have been made upon animals, with different objects in view, which nevertheless support Hoelscher's results. Thus, Von Czyhlarz and Donath have concluded as the result of their experiments that the tissues of the body have the power of rendering a poison, notably strychnine, inactive by causing its fixation in the tissues or perhaps by destroying it locally, provided its rapid absorption and transference elsewhere is not speedily accomplished. It is

true that these conclusions have been combated by Meltzer and Langmann, who think that the prolonged application of the ligature produces changes in the tissues which prevent them from absorbing the drug, but certain it is that other experiments have shown that the tissues do possess a destructive power over vegetable alkaloids.

Advantages and Disadvantages of Drainage After Abdominal Operations.

Hunter Robb, (Medicus, Oct., 1901) summarizes the indications for drainage as follows:

1. To provide a means of escape for the serous oozing which follows the separation of broad adherent surfaces.

2. To guard against septic peritonitis from retained pus from the tube, ovary, or other viscus.

3. To remove fluid in cases of persistent capillary hemorrhage.

4. To provide against hemorrhage in cases of hysterectomy when the pedicle is dropped.

5. To drain the peritoneal cavity and starve out the disease in cases of chronic or tuberculous peritonitis.

But from suplementary work done in 1891 he became convinced that the drainage tube favors rather than prevents infection. He quotes the objections to the drainage tube formulated by Professor Welch, of the John Hopkins University, about that time.

"(1) They tend to remove bacteria which may have gotten into a wound from the bacterial influence of the tissues and animal juice. (2) Bacteria may travel by continuous growth or in other ways down the side of a drainage-tube, and so penetrate into a wound which they otherwise would not enter. We have repeatedly been able to demonstrate this mode of entrance into a wound of white staphylococcus found so commonly in the epidermis. The danger of leaving any part of the drainage tube exposed to the air is too evident to require mention. (3) The changing of dressings necessitated by the presence of drainage tubes increases in proportion to its frequency the chances of accidental infection. (4) The drainage tube keeps asunder tissues which might otherwise immediately unite. (5) Its presence as a foreign body is an irritant and increases exudation. (6) The withdrawal of tubes left for any considerable time in wounds breaks up forming granulations, a circumstance which both prolongs the process of repair and opens the way for infection. (7) After the removal of the tube there is left a track prone to suppurate and often slow in healing."

Moreover, its use favors the occurrence of various post-operative complications of which Clark mentions (1) obstructions of the bowel; (2) fecal fistulæ; (3) visical complications; (4) post-operative herniæ.

In the majority of cases of pyosalpinx the pus organisms are dead at time of operation, and besides the peritoneum is capable in any case of taking care of a certain amount of infective material. Again Clark has well shown that the drainage tube or gauze often acts more as a plug than as a drain. In 222 cases, Robb has closed the abdomen with but one death, and has employed drainage only once. He insists upon an aseptic technique, thorough control of hemorrhage, careful manipulation to avoid bruising tissues, perfect toilet of cavity, removal of infectious foci, irrigation with salt solution, if necessary, reopening and cleansing cavity, and proper aftercare of the patient.

The Blood in Infancy and Childhood.

Light (New York Medical Journal, Nov. 30, 1901) mentions the following three specific and characteristic factors regarding the blood in infancy and childhood: 1. The blood of an infant tends constantly to resume embryonal characteristics when the clinical balance is disturbed. 2. Such disturbances produce blood changes out of proportion to the exciting cause, as measured by the standard of later life. 3. Lymphocytosis is pronounced. Moreover, the spleen in the various anemias, in rickets, syphilis, and chronic intestinal affections, so tends to enlargment, that this single factor has not the significance of later life, and the diagnosis can be made on the microscopic findings in the blood and viscera only. In chronic intestinal disorders the anemia in children is progressive, and a moderate leucocytosis is stated to be the rule. Typhoid fever and grippe in childhood, as in the adult, are distinguished by an impoverished red count, and by the absence of leucocytosis, or actual hypoleucocytosis, except in the presence of inflammatory conditions. In pneumonia the significance of leucocytosis follows the adult rule. It is absent in the very mild or in the fatal cases. It is usually high, but, where the reaction of the white cells is extreme, the prognosis is grave. Tuberculosis without cavity formation or mixed infection, the miliary type, and uncomplicated tuberculous meningitis, are unattended by leucocytosis, which fact is of service in the diagnosis. Most observers agree that leucocytosis is the rule in scarlet fever and that eosinophilia is constant and persistent, so that the disease may thus be distinguished from measles in which there

is no increase in the number of white cells, except where severe complications exist ,as bronchitis, and where the acid-staining cells are inconspicuous. The classification of the anemias of infancy offers many difficulties and favors debate.

Clinical Observation in Pericarditis.

Dr. Billings (Journal of the American Medical Association, Dec. 7, 1901), reports five cases. The cases illustrate the importance of the cardinal signs of pericarditis, namely, (1) the pericardial friction rub, (2) the form or outline of the precordial dullness, and (3), the position of the apex-beat, especially in relation to the left border of the precordial dullness. The pericardial friction rub is doubtless present in every case of pericarditis in some period of its course. It is practically the sole local sign in plastic pericarditis. It may not be recognized in pericarditis with effusion, although it is probably present in every case at any early stage of the disease, and in cases which recover after the disappearance of the effusion. It may be present, too, during the stage of effusion.

The form of the outline of dullness in pericardial effusion is characteristic. The pear-shape outline with the base downward; the dullness, even in the early stage of effusion, in the fifth right interspace, close to the sternum, obliterating the resonant angle formed by the lung, heart and liver; the dullness over the sternum extending to or above the second rib, together with the outline of the left border dullness, all these are easily recognized and almost pathognomonic. It is true that a greatly enlarged heart, with all its chambers dilated from myocarditis, and a weak diffusible apex-beat may present an outline of dullness which so nearly resembles that of pericarditis with effusion that it may be impossible to differentiate between them without puncture. The location of the apex-beat in pericarditis with effusion is characteristic. When it is perceptible it will always be found that the left border of dullness is relatively far removed from it, as it is not in any other cardiac disease. In large effusions it may be obscured and at other times the right ventricle may strike the chest wall in the region of the nipple, or undulatory waves be seen as the only evidence of the heart-beat against the chest wall. However, it matters not how the apex-beat of the impulse of some other part of the heart against the chest wall be ascertained, it will be found that the point of contact of the heart against the chest wall is always relatively far removed from the left border of precordial dullness, as compared with the relation of the apex-beat to the left border dullness in all other conditions.

Some other signs of pericarditis are as follows: Relatively rapid respiration and dyspnea; signs of compression of the left lung, evinced by left interscapular and subscapular dullness and bronchial breathing; rapid heart action, pulsus paradoxus, and asymmertry in size of the pulse of the radials; irregular type of temperature; paralysis of the recurrent laryngeal nerve; unequal pupils; disturbed mental state.

Chancre of the Tonsil, with Report of Thirty-five Cases.

John Edwin Rhodes (American Medicine, December 14, 1901), says chancre of the tonsil is often unrecognized because hypertrophy and inflammation are so frequent and are so closely simulated by the early symptoms, which often differ little from an ordinary sore throat. An enlarged and indurated tonsil with a superficial ulcer, accompanied by enlargement and induration of the contiguous submaxillary gland and unchanged by a prolonged course of treatment, renders a diagnosis of chancre probable. The character of the chancre depends upon the original condition of the tonsil as to size, density, the amount of follicular inflammation, and the coincidence of a mixed infection. A certain diagnosis cannot be made until the general eruption of the disease. The disease is contracted by direct contact or by various media, carrying the virus. Separate instruments should be used for examination and treatment of known syphilitics, but it is imperative that every operator should employ a rapid and efficient disinfection or steriiization of instruments after the examination or treatment of every patient. Most careful instructions should be given to patients as to the necessity of efficient isolation, the methods of infection, and the period of danger, and the use of individual household and other utensils should be enjoined.

Cerebral Abscess.

Gardner (Medical Record): The patient, a male, aged twenty-one, had suffered from chronic suppurative middle-ear disease (left side) from infancy. Perforation of the membrane existed in its upper and anterior quadrant, and slight tenderness was complained of over the mastoid. The pain becoming more intense, and the patient becoming somnolent and stupid, with a temperature of 103 deg. to 104 deg. F., operation was decided upon. The mastoid cells were opened, and cholesteatamatous debris scraped out.

Shortly after the operation marked paraphasia, principally affecting nouns, was noticed. The temperature was normal, and the pulse 50 to 60. There was also ptosis of the left eyelid, slight paresis of the right foot, and deviation of the tongue to the right. No tenderness on pressure or percussion was complained of over the head, severe pain existed in righ eye, and at the root of the nose. It was decided to explore for temporo-sphenoidal abscess. A grooved director was passed into the lobe, and at a depth of half inch an extremely foul collection of pus was found. A drainage tube was inserted, shortened on the seventh day, and removed upon the tenth day. Steady progress was made. The main points in the diagnosis of the case were the presence (1) of motor aphasia, (2) alexia, and (3) agraphia. The surface locations of these centres are quite apart, but from the temporal lobe there proceeds to the frontal lobe a band of association fibres, any lesion of which cases paraphasia. A second band proceeds to the occipital lobe,and a lesion of this tract is responsible for the alexia. The agrapia was probably a pressure symptom. The author sums up his remarks by saying: "The surgical moral is that aphasia in the presence of ear disease calls for exploratory trephining; the neurological moral is that more emphasis should be placed on subcortical aphasia in teaching and writing.

Case of Asthenic Bulbar Paralysis.

Hunter (The Lancet, Dec. 7,1901) raises the question whether the condition should not be regarded as a general myasthenia especially affecting the muscles supplied from the bulb. He reports the case of a man of 58 who experienced at first difficulty in speaking and swallowing, together with intermittent weakness in the extensor muscles of the neck. There was no family history of nervous ailment. The patient's head would fall forward on his chest unless he prevented this by supporting the forehead with his fingers. There was no spasm of the sternomastoids; the trouble was evidently in the trapezius and erector spinæ muscles, and there was some wasting of the upper fibers of the trapezius. At times there was spasm of the metacarpo-phalangeal joints of the right hand. The pateller reflexes were unduly active, but neither knee clonus nor ankle clonus could be obtained. Sensation was normal in the arms and legs; visual acuity was normal and there was no contraction of the fields of vision. The pupils were equal and responded to light and accommodation. Heart, lungs and kidneys were healthy. Articulation and deglutition grew steadily more difficult; myasthenia invaded the arms and later the legs. Attacks of dyspnea occurred two months after admission and the third of these attacks ended fatally. Post-mortem of the brain and cord presented to the naked eye strictly healthy appearances. Sections of the pons, medulla and cord were stained by Weigert's method, Nisl's method and with hematoxylon and eosin. No degenerative change was found in any of the sensory or motor tracts at the different levels, or in the anterior or posterior nerve roots. The sections stained with hematoxylon and eosin showed colloid changes in the vessel walls. The peripheral nerves and the muscles were not examined histologically.

The Cure of Chronic Bright's Disease by Operation.

Dr.George M.Edebohls(Medical Record, Dec. 21, 1901) attempts to demonstrate that chronic Bright's disease is curable by operation, and that the present state of our knowledge does not warrant us in accurately defining the limits beyond which operation can no longer avail. As the result of his experience, he is prepared to operate upon any patient with chronic Bright's disease who has no incurable complication or none absolutely forbidding the administration of an anæthetic, and whose probable expectation of life without operation is not less than a month. In deciding for operation it must be remembered that renal decapsulation is not directly curative of chronic Bright's disease, but only leads to a cure or inprovement of the disease by establishing circulatory conditions essential to such cure or improvement. The attainment of permanent cure or of the full measure of improvement possible in a given case, will necessarily require time, during which the patient will especially in the severer cases, stand in need of the further guidance and treatment of his family physician.

Concerning the Clinical Significance of the Klebs-Leoffler Bacillus

Rupp (New York Medical Record) offers the following summary and conclusions on this question. 1. Clinically there are two kinds of diphtherias when Klebs-Loeffler bacilli are taken into account: (a) those having the Klebs-Loeffler bacilli present; (b) Those having none. Both forms, however, develop the same clinical signs and symptoms, the same complications and sequelæ—von Behring to the contrary. 2. The character or quality of the Klebs-Loeffler bacilli that may be present in any case of diphtheria does not prognosticate

its course or termination. 3. Klebs-Loeffler bacillary diphtheria my be so mild as to simulate a simple tonsilitis, and yet the most virulent Klebs-Loeffler bacilli be present. 4. Virulent Klebs-Loeffler bacilli may be present in the throats of healthy people, never doing any harm to the persons harboring them, nor harming in any noticeable way or manner those who have come into close and intimate contact with the bacilli-infected people. 5. Klebs Loeffler bacilli are found associated with other bacteria in other diseases than diphtheria, but they fail to exert any appreciable influence on the progress and decline of those diseases. 7. Klebs-Loeffler bacilli vary much in size and shape from a regular and artificially determined type, and the quantity and quality of their toxity is not bound in any special or definite way to fit any particular typical or atypical form, if the most recent bacteriologic utterances on the subject be true. 7. The virulence or disease-producing qualities of Klebs-Loeffler bacilli can be determined only by experimental inoculation tests. All that the microscope can do in this matter is to differentiate their forms, every other delivery based on microscopic investigation alone is largely guesswork or hypothetic speculation. 8. The ubiquity of the Klebs-Loeffler bacilli and their irregular and varying forms, besides the inconstancy of their qualities, occurring as they do with clinical phenomena that are in no determinable way to be correlated with these physical irregularities of Klebs-Loeffler bacilli, make it impossible to grant them any primary specific etiologic importance in the pathogenesis of clinical diphtherias. 9. The "necessary influences" and the "favoring conditions," besides other factor of which we are still ignorant, enfold within themselves the secret of the real causes of clinical diphtherias. 10. The assumed etiologic and pathogenetic supremacy of the Klebs-Loeffler bacilli is largely, if not altogether, a synthetic demonstration. And, though this synthesis is not altogether a bridge of fancies. enthusiastic laboratory workers and their unquestioning followers, both lay and professional, are traveling to and fro over it, unhampered by any of the odious uncertainties and difficulties that have been presented, Of course a bridge that will not load itself with what it cannot bear will give support to any amount of "will to believe," but break under the weight of facts that denies passage to.

Contusion or Rupture of Intestine.

Toth (Medical Press and Circular of Oct. 16, 1901) describes the case of a patient, who about an hour and a half after supper, was kicked in the abdomen by a horse, upon which there was inclination to vomit, but none actually took place. The pain, the doctor says, was so great that the patient had to sit down on the ground in a doubled-up position; he was then taken to bed. The condition on the following day was the following: The face had a pained expression; the patient lay in bed turned toward the right, with the right thigh drawn up. The breathing was costal and superficial; there was no abdominal respiration. The abdomen was distended, painful to pressure over the whole surface, but more so about the umbilicus to the right, where there was a feeling of hardness. There was no trace of injury externally. On percussion there was dulness in the lower part, which varied with change of position. Collapse was extreme. Temperature 38 deg. C., pulse 120, small and easily compressed. There was no vomiting and no action of the bowels. One hour after admission the patient passed 300 to 400 cubic centimeters of bright-red urine, but there was no further attempt. In determining a diagnosis the question arose as to whether the peritonitis clearly present was due to contusion or to rupture of the bowel. The answer to this question was not easy to obtain, as the symptoms present might be due to either injury, and the hematuria still further complicated the matter. The hematuria was evidently due to traumatism of the kidney and not to any injury to the bladder, as after exclusion of rupture of the bladder, the chief symptoms of rupture of the bowel, such as vomiting, action of the bowels, and disappearance of liver dulness, were absent. Under such circumstances the diagnosis must be determined by the further course of the case. As a matter of fact, both vomiting and action of the bowels took place about midnight of the following night, the vomit being slimy and of a green tint. The abdomen became more distended. A diagnosis of rupture of bowel could now be made with confidence. Death took place the following day.

The autopsy showed meteorism, no trace of external injury either of the skin, the subcutaneous connective tissue, or of the muscular structures. On opening the abdomen a foul odor was perceptible. The abdomen contained about two liters of thin dark blood. The peritoneum was covered over most of its extent with a removable pseudomembrane, and beneath this was deeply infected. The pseudomembrane glued together the coils of intestine. On the duodenum there was loss of substance

over about one-fourth of the periphery. The loss of substance extended to the lumen of the bowels, the edges were rather sharp, and the rent lay transversely to the axis of the bowel. There was a large quantity of blood-clot lying among the adjoining intestines and adherent to them. The bladder was intact. The case shows the unreliability to the supposed symptoms of rupture of intestine.

Dangerous Hemorrhage After Removal of Enlarged Tonsils and Adenoids, with Report of a Case.

Getchell (Journal of the American Medical Association, Vol. xxxvii. No. 14) says: Enlarged tonsils and adenoids were removed from a five-year-old girl at a single sitting, under slight etheranesthesia. The tonsils were taken out first without the guillotine; and after subsidence of the hemorrhage, which was copious, the adenoids were removed with forceps and curette. The immediate results of operation were perfectly satisfactory, but within two hours the ethernausea appeared to have provoked repeated hematemesis. Although the bleeding ceased spontaneously the child exhibited signs of acute anemia, with extremely rapid heart action delirium, and restlessness. Saline solution hypodermically, produced improvement. Jacobi's mixture was given at frequent intervals, with heart-stimulants. Occasional attacks of vomiting of blood still occurred. The patient improved gradually and in a week was able to leave the hospital.

Dr. Getchell believes it advisable to remove the tonsils in successive sitting, without the resort to anesthesia, in very young children.

Delayed Union, Non-union, and Mal-union of Fractures.

A. H. Tubby (British Medical Journal, December 7, 1901) discusses the departures which occur from the normal process of union of fractures. Such departures are delay in union, failure of union, and union in bad position. Non-union includes all cases of delayed union, but the latter does not always imply the former. If, some weeks after the accident, a mass of callus is present, and gentle passive movement causes pain or inflammatory signs, the case is probably one of retardation rather than of failure of union. The most common cause of delayed union is undue mobility of the fragments. This may be due to: (1) The position of the fracture, in the upper third of the femur it is impossible to obtain effective purchase upon the upper fragment; (2) incomplete fixation of the limb by inefficient splints: (3) local anæmia due to tight bandaging; and (4), imperfect apposition of the fragments. It is important to ascertain if there is any condition of the patient which is responsible for general mal-nutrition. Locally, the most important consideration is to immobilize the fragments effectively without undue pressure or interferring with the circulation. Delay is often due to the patient's being kept too long in bed. Absolute non-union is of very rare occurrence; nearly all fractures unite ultimately with patient treatment. The most common general cause of non-union is syphilis; among the rare ones are phosphaturia, pregnancy, scurvy, and rickets. It is a fallacy to suppose that non-union is particularly prone to occur in old people, Non-union occurs seven times as often in males as in females. The local causes of non-union are, as a rule, more important than the general. In a severe compound fracture with much comminution of fragments, succeeded by necrosis and extrusion of fragments, non-union is likely to follow. The result of non-union is a false joint. In very rare cases only is there any attempt at the formation of a true joint cavity; that is to say, a membrane of fibrous tissue uniting the two lone ends. The most striking symptom of non-union is abnormal mobility, which is often painless. Functional troubles in the limb are very common; if the fracture is near the trunk, most of the coarser movements are lost, and the part may waste. If union is so much delayed that it appears that complete failure may occur, one is not called on to operate immediately. Be patient, improve the general health, immobilize the fracture, and wait. In some cases massage may be of great value, and it is well to examine the fracture from time to time by the X-rays. Certain methods formerly advised should be avoided. These are the injection of irritating fluids, acupuncture, the introduction of setons and foreign bodies, and electrolysis. Rubbing the ends of the fragments together and subcutaneous section of fibrous callus are also to be discouraged. But certain well-recognized measures have become permissible since the advent of aseptic surgery. These are refreshment of the ends of the fragments; resection of the fragments, and fastening them together, either by wire or by srews, or by the application of a bone ferrule; and transplantation of bone. The success of wiring depends largely upon whether the anatomical condition will allow safe access to the surfaces of the bone. In the case of the

upper third of the femur, it is extremely difficult to expose the whole circumference of the ends of the fragments.

The Diagnosis of Tuberculous Disease of the Lungs by Means of the Roentgen Rays.

Beale and Walsham (The Practitioner) state that the introduction of powerful induction-coils and improved tubes have given us the means of approximate diagnosis of tuberculous affections. Many cinical observations have been made by means of the skiascope; whether in bedside observations or from recording the shadows thrown by the solid portions of the thorax and its contents, it is absolutely necessary to employ a powerful induction-coil capable of yeilding a 12 or 14 inch spark. The coil should be worked with two four-cell accumulators of 21 hours ampere capacity and an electro-motive of 16 volts. The anticathode of the tube should be placed directly opposite the centre of the part to be examined, and from 12 to 20 inches from the chest-wall. The rays diverge from their point af origin, hence the tube must not be placed too near the chest-wall. Skiagrams should always be taken from both the front and the rear of the chest. The room must be darkened, and the eye of the operator ought to be able to discern objects in the dark. An exposure of 2 minutes is all that is required, except in corpulent or massive, when twice that interval may be necessary. No harm can come to the skin, etc., from short exposures.

In well marked tuberculous lesions, the affected area in the lung may at once be recognized by the shadow when the lung is examined by this screen. The shadow appears larger than the area recognizable by physical diagnosis; hence the doubt that it necessarily corresponds to the deposit of tubercle.

Ethyl Chloride as a General Anesthetic in Nasal Surgery.

Mackie (British Medical Journal) says the question of an anesthetic in intranasal surgery is often a pressing one. Cocaine, though invaluable when only the mucous membrane and subjacent parts have to be dealt with, is not so satisfactory when the deeper structure are involved. Gas is unsatisfactory, from the shortness of the anesthesia as also from the tendency to struggle under its use. Chloroform and ether, on the other hand, while they introduce an element of dread into the minds of our patients, cannot well be used in the upright position, a matter certainly of inconvenience to the operator.

Some months ago his attention was called to chloride of ethyl as a general anesthetic, and he at once put it on trial. The writer has had it in use ever since, and finds that it has greatly simplified and facilitated his work in nasal surgery. In operation on the tribunals and sinuses he has used it twenty-seven times, four times in adenoids, twice in septal deformity. In addition Dr. Mackie has given it for dentists and general surgeons fifteen times, making in all forty-eight administrations. In no case has he had the slightest anxiety or seen one dangerous symptom. In one or two cases, notably in one full-blown alcoholic, the administration was found to be rather expensive, from the amount of the drug required, while in a few earlier cases, through dread of giving an overdose, the anesthesia was shorter than was convenient.

The mode of administration which Dr. Mackie found most satisfactory is to press the mask well over the face so as to exclude all air, and to give the drug briskly and continuously,taking care to send the sprays right into the gauze in the ball of the inhaler. For a short operation such as the curetting of the anterior ethoidal cells, he has found from one-half to three-quarters of a minute of this brisk administratton sufficient. This will give an anesthesia of from two to three minutes. For longer operations it may be pushed considerably beyond this. The action of the drug is so energetic that there is some difficulty in being sure as to the extent of anesthesia, but by quickly removing the mask and testing the conjunctival reflex, he has generally been able to satisfy himself as to this. From the local action of ethyl chloride in the nasal passages anemia is produced, and we have practically a bloodless operation. This is a decided advantage. A caution is, however, necessary. The anemia soon passes off and violent hemorrhage may ensue, if we have allowed our patient to leave without providing for this by plugging, we may meet with unpleasant results.

From his experience of ethy chloride,or as its purified form is named, "kelene," he believes that while it is certain to find a place in surgery generally, in nasal work it will prove of inestimable advantage, not only as a convenience for the surgeon, but as a safe and almost pleasant means of enabling a patient to undergo what otherwise must be a trying ordeal.

The Effect of Diet on Character.

According to the Dietetic and Hygienic Gazette, Dec. 1901, a Frence medical journal attributes the following to an "eminent English physician":

An exclusively pork diet tends infallibly to pessimism.

Beef, if persevered in for months, makes a man strong, energetic and audacious.

A mutton diet, continued for any length of time, tends to melancholia, while veal-eaters gradually lose energy and gaiety.

The free use of eggs and milk tend to make women healthy and vivacious.

Butter used in excess renders its users phlegmatic and lazy.

Apples are excellent for brain workers, and everybody who has much intellectual work to do should eat them freely. Potatoes, on the contrary, render one dull, invidious and lazy, when eaten constantly and in excess.

To preserve the memory, even to an advanced age, nothing is better than mustard.

Foreign Body in Lung--Extrusion by Parietal Abscess.

Dr. Hughes (British Medical Journal, November 30, 1901) on August 28th was called in to see a child, aged 12 years, whom he found to be suffering from localized inflammatory trouble in the upper part of the right lung. This caused intense pain, more than is expected in an acute attack of acute bronchitis, extremely rapid and shallow breathing, together with great sleeplessness and unaccountable irritability of the nervous system generally. The pain was so great the child was afraid to cough, yet there was no sign of pleurisy or pneumonia. Moreover, the pain could be exactly located by the child placing her finger over the spot. I noticed, says Dr. Hughes, that day by day this spot changed its position in an outward and downward direction, the lung in its path taking on the auscultatory signs of bronchitis, whereas the parts previously affected gradually lost those signs.

At the end of the first week the pain was experienced directly beneath the lower angle of the scapula, and now signs of localized pneumonia presented themselves, and shortly those of pleurisy. The area now involved had a radius of about 3 inches. At the end of the third week the child was greatly better, the lung and pleura having quite healed, but 4 inches from the lower angle of the scapula and 5 inches from the nipple and a little to the left of a vertical line from the axilla a very painful red spot appeared, which in a couple of days resembled a boil. This was regularly poulticed, and I soon found that I had a large abscess to deal with, which burst through the skin, giving off a large quantity of pus. There was no connection with the pleural cavity, and the lung was now doing its work quite well. On September 25th a foreign body made its appearance at the opening of the abscess: this I extracted, and found it to be a head of wild barley (hordeum murimum).

On showing this to the child's mother I now learned for the first time that the child had "swallowed a wild grass" on August 21st, or a week before she got seriously ill. This evidently had found its way into the trachea by means of a deep inspiration, and had traveled through the main bronchus to the lung, setting up the above described trouble in its train. The wild grass is an inch and a quarter in length, and has several long awns or spikelets, which being compressible considerably help its progress onward by a kind of spring, whereas the spiculæ or barbs with which each awn is furnishes prevent the grass from travelling backward. In addition, the grass has a short, sharp stalk, which pierced everything with which it came in contact.

The child was quite well a few days after the removal, when the wound quickly healed.

Fatty Fibroid--Lipomyoma of Uterus.

Knox (Johns Hopkins Hosp. Bull.) detected this condition in a woman aged 62, who had borne thirteen children and miscarried three times. The menopause occurred at 50. Three years later serious vaginal discharge was noted and returned after an interval of eight years. It soon ceased, and recurred a year later, a few weeks before operation, when moderate but continuous bleeding had gone on for a fortnight. The discharge had never been fœtid. A large firm tumor was found connected with the uterus, filling the pelvis and extending almost to the umbillicus. Kelly removed the uterus and appendages by the supravaginal route. There were no firm adhesions, but hemorrhage gave some trouble. The patient was in fair health eighteen months after the operation. The tumor was taken for an ordinary fibroid until in the routine examination of the specimen in the laboratory of the Johns Hopkins Hospital it was discovered to be made up of large fat cells enclosed in a supporting substance composed of smooth muscle and connective tissue in varying proportions. On section the tumor presented to the naked eye all the appearances of a common

myoma; but on careful scrutiny yellow deposits could be detected, and on scraping oil globules could be brought away, a condition unknown in pure myoma.

The Flint Murmur in Aortic Insufficiency.

Thayer (Amer. Journ. Med. Sci., Nov., 1901) discusses the various explanations of the Flint murmur which have been suggested, and deals with the prevalence of the murmur in cases of aortic incompetence. In 74 cases of aortic insufficiency followed by post-mortem examination at the Johns Hopkins Hospital,45 showed intra-vitam, a rumbling, echoing murmur in diastole limited to the region of the apex; in other words, a murmur exactly similar to that characteristic of stenosis of the mitral valve. In some few cases it was separated by a short interval from the other sounds, being, in other words, middiastolic. In 12 of these cases there existed a stenosis of the mitral valve as well as aortic insufficiency. In 33 case the mitral orifice was of normal or increased circumference. With regard to the frequency of mitral presystolic murmur in aortic incompetency uncomplicated with mitral stenosis,he found such a murmur present in 33 out of 58 cases, though in this number are included 16 cases in which the mitral valve, though not in the least stenosed, showed other lesions. In the other 27 cases of incompetence the mitral valve was absolutely normal in 17. As regards diagnosis between the two conditions, the occurrence of a presystolic thrill is of great assistance. The character of the murmur differs in no way in aortic incompetence from that of mitral stenosis. In true mitral stenosis, however, even if complicated with aortic snsufficiency, the tapping systolic shock and the snapping first sound are common. The Flint murmur, on the other hand, is usually associated with the characteristic having impulse of aortic snsufficiency, and the dull, ill-defined, prolonged first sound. A tapping impulse and a snapping first sound may, however, be present. Of special importance is the character of the pulse. In cases of aortic insufficiency with Flint murmur the pulse is large and collapsing; in instances combined with true mitral stenosis there is generally an appreciable modification of the size of the pulse. The diagnosis of a Flint murmur is fairly safe when rumbilng or echoing presystolic murmur in the region of the apex is present in aortic insufficiency occurring in an indivicual with well-marked general arteriosclerosis, especially where there is no history of acute malady ordinarily associated with the development of endocarditis. and in the absence of a marked systolic shock or snapping first sound. If, on the other hand, the patient be an individual with soft peripheral arteries and a history of attacks of acute rheumatism or chorea, or other evidence suggestive of the existence of an endocarditis, the probability of a concomitant affection of the mitral valve is greater, and the possibility of arriving at a definite diagnosis is correspondingly less. While, as a rule, the Flint murmur is not of very great intensity, is associated with little or no thrill, with no marked tapping systolic shock. and rarely with a snapping first sound, there may be striking exceptions to this rule.

Fistula.

Evans (Cincinnati Lancet-Clinic) is of the opinion that there is no cure for fistula except by cutting. Where he has a patient showing a well-established complete fistula, he carefully dissects it with a probe-pointed director, looking carefully for a branch or branches. If the director fails to enter the rectum, he pushes it through, and then hunts for an intestinal opening. The tract is then thoroughly cleaned out with a curette and closely packed with gauze, which is removed every day, if necessary, until the wound is healed. If the case is one in which there is a complete fistula on either side of the gut, he is careful to cut the sphincter but once, and then makes the tract on the other side quite large, so tha the may be able to pack the second tract with ease and heal the wound from the bottom. In superficial fistula, Dr. Evars follows the plan advisedby Kelsey, viz., after the second or third day to discard all packing with gauze, and simply keep the rectum clean and insert the finger into the rectum. The relation of fistula to tuberculosis is discussed. Dr. Evars believes that in these cases much can be done by palliative treatment and a cure often produced. He says to let acute phthisical cases, especially those with a bad cough, alone, or, at least, let the work be simply palliative; but in all chronic cases under favorable circumstances, to attempt a cure. After the operation he advises all the fresh air and sunlight possbile, a liberal supply of milk, cream and tincture ferri chlor., and driving in the country, the paticnt being well protected against cold.

Gelatine as a Hæmostatic.

Wood (Merks Achives) remarks that solutions of gelatine solidify on cooling if stronger than 2 per cent., but strong solutions of the iodides or chlorides prevent this change. When injected into an animal coagulation is much quickened, and true clotting, not mere justification, takes place.

Gelatine can oppose the action of peptone, which prevents clotting, and the statement that being non-dialysable it cannot be absorbed from the tissues is without foundation, because, first, it could be carried by the lymphatics, and, secondly, it is actually found to be absorbed, and the blood of the animal so treated clots in a fraction of the time required before injection. It has been used with success in aneurysms, purpura, hæmopsysis, and after operation. The question whether it can be administered by the mouth without destruction through digestion is disputed, but in some cases severe hæmorrhages have ceased after gelatine has been swallowed. Externally it has been used with success in epistaxis, etc., in a strength of 10 per cent. For hypodermic use a 2 per cent. solution (in normal salt solution) is sterilized by being raised to the boiling point at intervals for a short time. About 3½ ounces of this, or 100cc. containing 30 grains of gelatine, are injected into the loose subcutaneous tissue with due precautions. Some fear that it might cause intravascular clotting has been expressed, but he thinks that the danger from this source is small.

Gonorrhea.

T. W. Eden (The Clinical Journal) uses a 1-1000 solution of bichloride or biniodide of mercury thoroughly applied to the vaginal mucous membrane. This solution must be applied under an anesthetic and by means of a stiff brush. This treatment must be carried out early, that is, before the Barthelonian glands are involved. When the disease involves she urethra, this must be dilated and the canal swabbed out with a 1-2000 perchloride solution. When the above treatment is refused, the best method of treatment is by pessaries of cocoa butter containing twenty grains of iodoform and ten grains of oil of eucalyptus. A pessary is passed into the vagina when the patient goes to bed; it melts and the solution flows over the vaginal walls and into the folds and depressions. Douches are used in addition to the above. A douche should always be given with the patient in the dorsal position.

The Temperature of Phthisis.

Dr. Lawson, at the Edenburgh Medico-Chirurgical Society, Dec. 4th, 1901., read a paper entiled, "Some Clinical Observations upon the Temperature of Phthisis based upon the Experience of One Hundred Consecutive Cases Treated by Open-Air Methods." He said (British Medical Journal, December 21, 1901) that the clinical picture of an active phthisical lesion in process of arrest was characterized by well-marked clinical phenomena which appeared and were maintained simultaneously. These phenomena were (1) gain in weight, (2) fall in pulse-rate, (3) fall in respiration-rate, (4) fall in temperature by lysis, (5) diminution in amplitude of temperature. The fallacies were noted: (1) that there was often a gain in weight without improvement; that while the patient was gaining weight he was steadily losing ground; (2) that there was sometimes gain in weight and fall in temperature, and yet a downward tendency. The temperature of phthisis was then discussed, and it was pointed out that it was characterized by two main qualities: (1) inelasticity, and (2) instability. By the former term was meant "that tendency which temperature exhibits when disturbed by any exciting cause to remain in the altered condition after the disturbing factor has been withdrawn." By instability was meant "a marked sensitiveness to reaction, an extreme liability to become disturbed in the presence of apparently trivial influences—influences so slight that they produce practically no effect on the temperature of healthy persons." The excitement of a visitor, slight digestive irregularity, the hot weather of July last, seemed to produce great instability of temperature. As to the method of taking temperature, Dr. Lawson strongly urged the rectal method as "incomparably more reliable and better than any other, and which would be adopted in almost every case of pulmonary phthisis." The advantages of the rectal method were that in some cases of genuine relapse the rise in temperature appeared in the rectum some time before it gave any indication elsewhere. The difference in time sometimes amounted to twelve hours. Then the rectal temperature was higher both relatively and absolutely. The rectal temperature was disturbed by trivial factors, such as slight indigestion and nervous causes, which often did not affect the axillary range. The rectal method was of greatest value in relation to the question of when to begin and how to regulate a patient's exercise. Reference was next made to common errors in diagnosis due to faulty temperature records. The temperature should be taken at the same hours each day. By faulty temperature taking tuberculosis was sometimes mistaken for enteric fever. By taking the temperature at 10 a. m., and 10 p. m., pyrexia was often mistaken for apyrexia. An inverse temperature was sometimes missed through a night call. The effect of exercise upon the tuberculous and the healthy subject respectifully was next discussed, and

it was stated that in the turberculous subject exercise both depressed temperature and raised it.

Cases were referred to in illustration, and charts shown. In one case a walk of a mile and a quarter lowered the temperature by a degree Centigrade. In another case with a steady morning, 8 a. m., temperature of 98.6 deg. F., where there had been a gain in weight of 20 pounds in eight weeks, exercise gradually increased up to four miles produced marked improvement all round, but in particular the range or temperature records as a guide to treatment was strongly urged and illustrated. In conclusion, Dr. Lawson said that while of great value, probably of more value than any other sign, it was not altogether safe to trust to temperature indications entirely. In the majority of cases the general rule held good, and a rectal temperature of 98.6 deg. contraindicated exercise. But in the residuum of cases which did not come under that category he had frequently found it an extremely difficult point to decide when exercise should be begun. The pulse indication was of some value, but had been overestimated in some quarters. No single sign could be trusted, neither weight, pulse, nor temperature. An all-round view must be taken, the physical signs and symptoms should be taken, and in interpreting these the experience of the physician counted for much. Those who had worked most at this subject most felt the difficulties of the task, and refrained from formulating hard-and-fast rules for treatment. Individualizing was absolutely necessary in all the details of examination and management.

The Worsted Truss for Hernia in Infants.

S. C. Hubbard (Annals of Surgery) asserts that the worsted truss has certan definite advantage over other forms of truss. It is very cheap, and when soiled can be changed. The soiled one can be washed, and is then ready for use again. A skein can be washed a number of times without injury. When it loses its elasticity, however, its usefulness is gone. The truss cau be worn in the bath. It is less likely to irritate the skin than a spring truss. Worsted is ordinarily sold in a skein made up of two laps. A lap, or a half of a skein, is sufficient for a truss. The method of application is as follows: The child is placed on his back, the half-skein is passed under him and pulled far enough so that the end just reashes the internal ring. The other end is then passed through the loop of this first end and the hernia is reduced. The bunch of worsted made by the looping of one end through the other is adjusted carefully and firmly over the hernial opening, and the free end then passed under the leg and fastened by a bit of bandage to the part on the back. If the skein is so long that there is a mass of extra worsted in the back where the perineal arm fastens to the horizontal part, a neater and more comfortable truss can be made by rewinding the worsted, making it the proper length. The truss should fit snugly, and should be worn at night as well as during the day. Whenever it is to be changed, the child should lie down. Occasionally, the skin of the groin becomes chafed. This can be guarded against and prevented in most of the cases by keeping the parts dry and by changing the worsted as often as it becomes soiled by urine or dejections.

Pseudomembranous Inflammation of the Mucous Membranes Caused by the Pneumococcus.

Drs. Cray and Lyon, (The American Journal of the Medical Sciences, Vol. cxxii., No. 3).

The patient was an eleven-year-old boy of negative family history, who had been a mouth breather from enlarged tonsils. Since the excision of the tonsils at the age of six years, he had had frequent attacks of tonsillitis, but the diphtheria bacillus had never been present in the cultures taken from the throat.

His present illness began with sore throat and fever and, proved to be an acute lobar pneumonia of both bases. An abundant white exudate developed on both tonsils; a culture taken from the throat proved negative for the diphtheria bacillus. The exudate extended rapidly to the lips, tongue, mouth, palate, nose, pharynx, eyes, glans penis and anus. There were physical signs of fibrinous pleuritis. Tympanites was persistent and marked, and the stools contained mucus and membranous shreds. The pneumococcus was present in all the pseudomembraneous exudation, and also in the sputum. It was grown in pure culture from the eyes and nose, and together with the staphylococcus pyogenes aureus from the mouth and sputum. The pneumococci proved virulent for a rabbit, and were recovered, pure, from the animal's heart's blood. The boy recovered slowly after the pneumonia had terminated by gradual lysis. Local germicides proved useless, but amelioration was rapid after the administration of drachm doses of brewer's yeast was begun.

Anodynes in Children.

Pettit (Columbus Medical Journal) advocates the use of opium in children only when strongly indicated. It retains poisonous material in the alimentary canal; it checks secretions and hinders elimination; it parches the tongue and increases the fever. Many times nothing can take the place of opium, but frequently some other remedy will meet the indication. Sponging with cold water relieves headache in fevers; but douching to relieve ear-ache; evacuating stomach and bowels for colic; quinin for malarial and mercury for syphilitic pains. Acetanilid has not the disadvantages of opium, but is more dangerous to life. The combination with each grain of acetanilid of $\frac{1}{5}$ gr. of milk sugar and sodium bi-carb., and 1-20 gr. of caffein and camphor monobrom., increases its safety and efficiency. Alcohol often proves useful, especially in bronchitis with painful cough. Let every resource be exhausted before prescribing an anodyne.

Cardiac Pain and its Treatment.

Latham (Clinical Journal): If the pain is due to the heartburn following dyspeptic disturbance, we must attack the digestive organs. The pain dependent on dyspepsia may be relieved by suitable means; for example, by a careful dietary, by bismuth and hydrocyanic acid and other stomachic sedatives, together with an occasional mercurial purge. A definite atrack of pain may be relieved by a mixture such as sp. æther. co. and sp. camph. co. aa 3j in aq. menth. pip. 3j. If this is not successful we must have recourse to small doses of morphine.

Local conditions, peritonitis, intercostal neuralgia, and rheumatism are often relieved if we support the parts by strapping or by plasters of belladonna, and the like. If the plaster is applied in strips it is more efficacious than a piece of plaster four by five inches. Where the cardiovascular system is affected, the pain is believed to be often due to dilatation of the ventricle, or to strain following on increased work, and that gives us a clear idea of what we should do for this class of patients, viz, that we should in the first instance give them rest. Careful instructions must be given as to the general health. If these, together with rest, do not relieve the pain, we may apply belladonna plaster, or better still flying blisters constantly repeated, to the position of the pain. As far as external remedies are concerned, there are only two drugs that have any effect at all upon the pain found in cardiovascular conditions other than dilatation and those are potassium iodide and arsenic. In aortic regurgitation or artheroma there is no drug which has anything like the power of potassium iodide in from ten to fifteen-grain doses. If after a trial, extending, if, necessary, over some months, you find the pain is not becoming less, then try arsenic.

He gives the majority of his cases potassium iodide in the first instance. If this drug combined with rest does not relieve the pain, the author recommends arsenic given alternately with potassium iodide. In dilatation we must have recourse to digitalis and other cardiac tonics. During an attack of definite pain in cardiovascular cases, rapid stimulants and carminatives are called for, such as ether, ammonia and alcohol. If these do not relieve the patient, it will be found that leaches, which act so extremely well in the pain of pericarditis, are probably our best remedy, especially when combined with a large dose of calomel. If leeches do not bring relief, then we must have recourse in morphine.

Dysmenorrhea.

Dr. W. Gill Wylie (Am. Jour. of Obstetrics and Diseases of Women, Jan., 1902): My definition of dysmenorrhea is that it is pain just before or during the menstrual flow. My own test is is as follows: If the nulliparous patient complains of pain before menstruation, or, after it begins, during the flow, when you come to examine the uterus it will be found, as a rule, abnormally small, especially about the cervix and at the os internum, and if active disease be excluded you will nearly always find present an anteflexion. I do not think that any mere mechanical act of opening the canal will aid much in overcoming the difficulty. I place the patient in the Sims position and pass a small silver probe, the same kind of probe as Dr. Sims used. If that woman is suffering from dysmenorrhea, almost without exception the passing of that probe will cause pain, especially when the probe reaches the os interium; in other words, the tissues at that point are extremely hyperesthetic. This test I consider almost pathognomonic, and it is a test that should be made. Now, given such a case in a woman who is well and whose gereral condition is fair, with an atrophied and extremely imperfectly developed uterus it is my experience that if you thoroughly divulse and produce a fair amount of dilatation and splitting the muscular tissue and tearing it, good results will often follow. I am satisfied that a one-quarter to one-half inch separation of the dilator, with not less than two hundred pounds pressure, will accomplish good results. The old method

of claiming one to one and a half divulsions was wrong and was only apparent and not actual, unless the whole muscular structure at the os internum is torn through. I never use violent mechanical power such as can be had with the thumbscrew, for we cannot estimate the power employed.

Having divulsed the canal, I run over the surface of the endometrium with a curette, if indicated, then put in place a hard rubber drainage tube the size of a lead pencil; this has a somewhat conical, bulbous end, with a slot which takes up fully one-third of the calibre of the tube; it has a round, button-shaped end in the vagina. In some cases curetting is very useful and essential where we have some pathological change to deal with, but in many cases curetting does not bring away very much. I claim that even a thorough divulsion will not give very lasting results, the dysmenorrhea being relieved but a short time only. My experience has taught me that when we use the dilating and hard-rubber drainage tube, *keeping the os internum open* for a week or more, a great many cases will be cured, but a large percentage will not be cured. By accident I found that the tube could be left in through one menstruation and then, as a rule, should be taken out. In obstinate cases the tube can be left in through two menstruations without danger and the patient could go about. In very many cases of imperfect development this operation will give results which last three, four, or even six months; but in the typical severe cases there is likely to be a return of the trouble. We must give time for the organ to grow, same as in a growing child—to develop; and so in these extreme cases the procedure may have to be rapeated three times. If I today got ten cases of dysmenorrhea, all under 23 or 34 years of age, I would expect to cure without very much trouble not less than nine out of the ten. I have treated several hundreds of these cases without having anything like an accident or serious consequence from the use of the tube, so far as I know; the same results should be obtained when treatment is in the hands of surgeons who are clean and expert. I think that the whole subject of the difficulties encountered in curing this trouble has been misunderstood and rarely carried out efficiently by physicians. Formerly I used gauze in the vagina to keep the drainage tube in place, but a hard-rubber Albert Smith pessary is much better and essential when the tube is worn during menstruation. This procedure has been of immense value to me in looking after women who are steril; good results frequently follow from simply giving this treatment in an efficient manner in cases of sterility uncomplicated by occluded tubes, gonorrhea, etc. I have used this method during the past twenty years and the only change that I have made has been in perfecting my method.

Gold-Beaters Skin Court-Plaster as a Dressing for Operative Wounds.

Day (Gynecological and Obstetrical Journal) has been using gold-beaters skin court-plaster as a dresing for operative wounds with exceedingly satisfactory results. The writer says that it is aseptic, antiseptic, impervious to germ life; that it is thin and pliable, transparent, fibrous and adherent; that it forms a light and comfortable dressing; and that it is readily removed by applying moisture.

After he sutures a wound the surface of the skin about is saturated with an antiseptic solution. A dry strip of plaster about three inches wide is then fitted over the wound. The outside of the plaster is then thoroughly saturated with the solution. Bubbles of imprisoned air are pressed out to the edge of the plaster at the same time. In a few minutes the plaster is dry. It is his practice, in dressing laparotomy wounds to apply a strip of adhesive plaster one inch wide and twelve inches long, transversely across the wound and abdomen to prevent undue tension on the stitches during the vomiting period. Over all is applied a layer of absorbent cotton to take up whatever drainage may occur.

Should there be any bloody, serous, or other discharge from the wound, the isinglass of the most dependent part of the plaster is softened, and the discharge is carried by gravity and capillary attraction to the edge of the plaster and absorbed by the cotton. As soon as the discharge ceases the plaster dries and the wound becomes hermetically sealed. After about three days when vomiting has ceased and union has begun, it is his custom to remove the adhesive strip, and if any dry blood is seen under the plaster, to wash off the plaster and wound with an antiseptic solution. The wound is then dressed with a new plaster as before, this forming a dressing absoutely safe against infection, and incomparably more comfortable than the loads of material usually applied.

He has always sutured the tegumentary wound, but should it be desired to approximate the skin surfaces of the wound without sutures, he can conceive of no better material than gold-beaters' skin court-plaster for that purpose.

Genital Tuberculosis.

Young (Annals of Surgery) says in genital tuberculosis, epididymectomy, with high resection of the vas deferens, is the operation of choice.

Castration should be confined to cases where the testicle proper is involved or the scrotal is extensive.

Double castration should be avoided if possible, a portion, at least, of one testicle being left, even with the risk of local recurrence of the disease.

Operations upon the seminal vesicles and prostrate should only be done after removal of the tescular foci has failed to arrest the progress of the disease in these organs, and it has spread to the bladder.

Serious involvement of distant parts—pulmonary, unrinary, osseous, etc.—does not contra-indicate operation, especially since the more exact methods of using cocaine have made general anæsthesia unnecessary.

That remarkable disappearance af extensive tuberculosis of the prostate, seminal vesicles, bladder, kidneys, lungs, etc., may follow the simple removal of the testicular foci seems abundantly proved.

Hepatic Drainage.

John B. Deaver and Edward Kemp Moore (Philadelphia Medical Journal, Dec. 21, 1901) says the mortality of operations for gall-stone lies, not to the charge of the operation, but to the time at which it is done Gall-bladder surgery aught not to be a "last resort" procedure, but should be done at the time when the chances of recovery are best. In an operation for gall-bladder disease, if there is any marked change in the gall-bladder it is better to remove it. Dr. Deaver believes that experience will in the future show us that the removal of the gall-bladder is nearly as necessary in operating for gall-stones as is the removal of the appendix in appendicular inflammation. In the early cases, removal of the gall-bladder prevents many an embarrassing case of biliary fistula, and assures us that we have removed the seat of nearly all cases of defective hepatic drainage. In advanced cases with cholangeitis it is essential to freely open and drain the bile ducts, for, in the free escape of the infected bile, lies our only hope of curing the condition.

How Shall We Treat Sepsis Following Labor and Abortion?

Dr. W. O. Henry (Journal of the American Medical Association, Jan. 11, 1902), in a paper on this subject, read at the recent meeting of the Western Surgical and Gynecological Association, took the ground that it was important to remember that sometimes malarial and other fevers followed closely upon abortion and labor, and all such cases should be carefully distinguished from true puerperal sepsis; but having once fully determined that infection has really occurred along the genital tract, only one line of treatment was justifiable in the present state of our knowledge. Although he admitted the different varieties of infection, yet, since it was both unsafe and impracticable at the present time to wait for bacteriologic examination, and since, further, the treatment he recommended was safe, practical, curative, and within the reach of every physician, he insisted upon its universal adoption. After giving somewhat elaborately the reasons for his belief, he summarized as follows. 1. Remove early with the finger, sharp curette and flushing, all debris, decidua, blood clots, and sloughing tissue which may be infected, from the uterus and from all raw surfaces in the cervix, vagina and vulva. 2. Dry all of these raw surfaces and freely apply to them 95 per cent. carbolic acid, washing away the surplus acid with sterile water. 3. Unless hemorrhage requires, leave no tubes nor packing of any kind in either the vagina or uterus. 4. Have simply carbolized 2 per cent. vaginal douche used twice a day thereafter. 5. Open the bowels freely with calomel, one-half grain every hour for four hours, then follow with Rochelle salts, until sufficient action has occurred. 6. Give quinin, three grains every four hours, followed by tincture of chlorid of iron, 15 drops, in water. 7. Give good nourishment with milk, eggs, and stimulants every four hours. 8. Let this be the routine early treatment, and hysterectomy will be rarely required. 9. When fixation of uterus occurs, and infiltration takes place in Douglass' cul-de-sac or the broad ligaments, or when the tubes or ovaries fill with pus in acute cases, open promptly and drain through the vagina. 10. If multiple abscesses occur in the uterine wall, or the walls become badly infected, or, if necessary, to get perfect drainage for a badly infected pelvic cavity, remove the uterus and all else necessary by the vaginal route. The abdominal route is dangerous in all acute cases, and is seldom, if ever, justifiable.

Hernia Epigastrica.

Lothrop (Boston Medical and Surgical Journal, Dec. 5, 1901) discusses the etiology, pathology, anatomy and symptoms of the condition. It may be due to embryonic

defect, to weakness in the abdominal walls and to trauma, and there is evidence of the influence of properitoneal fat and terminal vessels and nerves in its causation. The fatty tumors and epigastric hernia are usually of slow origin and tend to develop at the point where the vessels pass forward through the anterior sheath of the rectus muscle, particlularly in the linea alba. The steps of this process are given in the remarks on pathologic anatomy. It is quite possible that these elements may give rise to no disturbance whatever, but in the common type there is more or less gastro-intestinal disturbance with or without local pain. It is a good rule to examine the epigastrium in gastric disturbance to make sure as to this condition. The symptoms referred to the stomach may be nausea, vomiting, increased ascidity, eructations and occasionally palpitation where the heart's action becomes embarrassed. The motile power of the stomach may be interferred with. Pain is commonly present. All of the symptoms usually follow a meal, sometimes in proportion to the amount of the ingesta. Tenderness may be present or absent in any case, and in some cases in fat patients the tumor may be difficult to be palpated. Tumors in the region of the epigastrium should suggest this possibility. The prognosis is not bad in cases where there are no symptoms, though it may give rise to symptoms at any time. If it causes any trouble treatment is indicated. Operation, however, is the only means of relief when symptoms are troublesome and it is very important to free the omentum from all adhesions, and recurrence is unusual.

The Hydriatic Management of Pneumonia.

David Paulson (Medical Standard) believes that the best way to combat the local congestion of the lung tissues is to produce a cutaneous hyperemia in the blood-vessels of the back by prolonged application of heat to the back, alternating once an hour with cold applications, as this will increase the physiological action of the heat. At the same time, excellent results will be secured by applying, especially during the early stages of the disease, the cold compress or ice compress to the chest, exchanging it every hour or two for a hot fomentation to prevent the superficial tissues from becoming dangerously chilled from too prolonged application of intense cold. Cold to the chest causes contraction not only of the surface blood-vessels, but of the pulmonary vessels as well. The elimination of poisons will be encouraged by copious water-drinking, by daily enemas and short sweating packs or even short hot baths when the patient is not too feeble. All hot applications should be supplemented by some brief cold treatment.

The dietary should consist of well-dexterized cereals and the easily digested fruits rather than flesh foods, which must contain more or less of the waste products resulting from animal metabolism.

Headaches of Nasal Origin.

Bronner (British Medical Journal, Dec. 7, 1901) points out the fact that nasal headache is often neuralgic in character and then generally caused by disease of one or more of the accessory sinuses. A diffuse headache is often due to nasal obstruction or rhinitis, but it can also be caused by disease of the accessory cavities. The head symptoms due to disease of the accessory cavities are not at all characteristic or confined to any special area, nor are they of any uniform type. There may be disease of any of the cavities without any pain in the head or indeed elsewhere. Empyema of the maxillary antrum seldom causes very severe pain except in acute cases or when the bone is diseased. Apart from the check, the pain generally is referred to the frontal region, and it is nearly always intermittent. It is important in these cases not to jump to the conclusion that the frontal sinus is affected, as is so frequently done. In addition, there is local tenderness on pressure or sudden movement. Several illustrative cases are cited that show the value of certain operative measures.

Human and Bovine Tuberculosis.

Blackader (Boston Medical and Surgical Journal, Dec. 7, 1901) says that the species of bacillus in man and the lower animals appears the same, with variations acquired in the passage through successive individuals of each kind of animal, the germ developing a maximum virulence for the species through which it has passed. Evidence of transmission from cattle to men is sifted and it is pointed out that it is unfair to consider the local character of lesions produced by superficial inoculations as an indication of lessened virulence as the skin offers a poor soil. It has been shown that in order that milk shall prove pathogenic even for young cattle, the bacilli must be abundant. Two fairly convincing instances of human infection are cited. The autopsy records of Great Britain, Germany and France are analyzed in reference to the sites of the primary lesions in early childhood and shows a prepondering number in the respiratory tract. To interpret these records aright we must recognize the peculiar susceptibility of pulmonary tissue, and

the activity of the lymphatics in the child, but also remember the probability of its infection through its creeping habits and tendency to put everything in its mouth. These statistics point to the danger from milk having been exaggerated. The rapid and slowly progressive types of tuberculosis in the young are described. It is possible that infection with bovine tubercle bacilli leads to the first and with human bacilli to the second. The question of transmission is still an open one.

Hot-Water Irrigations of the Bowel in Scarlatinal Nephritis.

Saundby, (Birmingham Medical Review) recommends irritation of the colon with hot water as the best means of restoring the functions of the kidney in scarlatinal nephritis. It should be employed whenever the quantity of urine is diminished or when convulsions occur. In a child aged three years, 500 to 750 cubic centimeters of water at a temperature of 43 deg. C. should be introduced by means of a rectal tube passed into the rectum for a distance of 2½ centimeters. If the water is returned at once it must be repeated, and irrigation should be continued every six or eight hours. After three or four administrations the kidneys generally commence to act and abundant diuresis takes place.

Hematuria in Childhood.

Dr. Campbell Williams (Medical Press and Circular) says that it is often extremely difficult to decide as to the cause of the hemorrhage in these cases. Hematuria may depend upon purely local causes, or it may form but one symptom of some general systematic disorder. It is met in conjunction with rickets, infantile scurvy and hemophilia. Again, it occurs in connection with renal infarction, pneumonia, acute nephritis, typhus fever, variola, malaria, diphtheria and scarlet fever. It is sometimes due to the presence of the bilharzia hæmatobia in the pelvis of the kidney or in the vesical veins. Another parasitic cause is the filaria sanguinis hominis, or it may result from the intravesical presence of migratory intestinal worms. Chlorate of potassium, turpentine, cantharides, and other drugs with definite action upon the kidney, or even heavy doses of boracic acid, may be provocative causes. Hematuria may result from traumatism of any portion of the uterine tract, or it may be due to the presence of a renal, ureteral, vesical or urethral calculus. It is likewise a symptom of tubercle or sarcoma of the kidney or bladder. He gives details as to the differential diagnosis.

Infections in Diseases of Women.

C. A. L. Reed (St. Paul Medcal Journal), says that the epithelial surface of the genital tract in its integrity is an efficient barrier against invasion of the underlying structures by pathogenic microorganisms that establish parasitic and saprophytic relations to the vagina.

The normal cervix and its contained secretions are adequate barriers against invasion of the uterus by pathogenic bacteria that are capable of maintaining a habitat in the vagina.

The vagina possesses certain powers of self-disinfection, which work only against the organisms that are at once true parasites and facultative aerobes.

Certain pathogenic bacteria—notably the gonococcus of Neisser, the Klebs-Loeffler bacillus, and the oidium albicans—find. in the warmth and moister of the genital epithelium, conditions favorable to their propagation and to the increase of their virulence whereby the epithelium itself may be destroyed to the extent of losing its protective properties.

Pathogenic bacteria, innocuously present in the genital tract, may become virulent when introduced into the underlying structure through a breach in the protective epithelium.

Pathogenic bacteria when introduced into previously normal tissues immediately provoke the process called inflammation, the essential phenomenon of which is the speedy deposit and rapid extravascular migration of the leucocytes, which act as phagocytes in preventing the further invasion of the system.

Pathogenic bacteria that are not thus overcome by the leucocytes, may enter either the lymphatic or sanguiniferous circulation, producing secondary phenomena, septicemia, pyemia, and even the death of the patient.

Intestinal Surgery.

Benjamin (Northwestern Lancet, Dec. 1901) concludes that close approximation of the opposing surfaces preventing leakage and peritonitis can be best secured by the use of the Murphy button or the Czerney-Lembert or the Halsted sutures. Maintenance of the lumen, especially in the small intestine, is best secured by the Murphy button. However, where sutures are alone used and are carefully introduced, not allowing puckering to take place at the time nor turning in too much, a small opening does not follow, as shown by his experiments. Adhesions around the exposed raw surfaces are best avoided by the use of the elastic ligature, though there is little chance

of this occurring in Maunsell's operation. Where too many sutures are introduced there may be gangrene from cutting off of the blood supply. This is avoided by the Murphy button, and especially by the elastic ligature. The contents of the bowel are best prevented from infecting the wound by the use of the Murphy clamp or a tie of gauze around the intestine.

Traumatism is avoided by using sutures of elastic ligature, but often caused by using the Murphy button. In the matter of time the Murphy button and elastic ligature take the lead.

Of sutures the Halsted, which does not penetrate the mucosa and leaves less suture material exposed, is followed by fewer adhesions and makes a close approximation. When used by Connell's method still fewer adhesions result. Cushing's continuous suture is also very satisfactory. The square knot is the most suitable, and should be only firm enough to approximate the membrane. The continuous sature, apparently excepting Cushing's, is not very safe. It is likely to slough out in places unless anchored frequently by a half stitch. When the sutures penetrate the mucosa and are tied on the serous membrane, a peritonitis or infection by capillarity sometimes results. Care should be observed in putting in the mesenteric stitch and all stitches on the concave side of the bowel, to avoid cutting off the blood supply. The external row of sutures or an excess of stitching often causes gangrene. Nature saves many cases by supplying an extra barrier to infection by the omentum plastering itself around the place of danger. This is well to remember as the omentum can easily be stitched around the questionable point.

Infectious Diseases Spread Through the Milk Supply.

G. M. Kober (American Journal of the Medical Sciences, Vol. CXXI, No. 5) has made a study of 330 outbreaks of infectious diseases, and his conclusions are as follows: The number includes 195 epidemics of typhoid fever, in 148 of which the disease prevailed at the farm or dairy. Of the 88 scarlet fever epidemics, 68 showed cases of the malady at the dairy or milk farm. In six instances persons connected with the dairy lodged or visited in infected houses; in seventeen cases the infection was conveyed by persons handling the milk while suffering or recovering from the disease, and in at least ten, by people who acted as nurses while handling the milk. In one instance the cans had been wiped with an infected cloth, and in two cases bottles or cans became infected while left in scarlet fever houses.

Of the 36 diphtheria outbreaks, 13 showed cases at the dairy. In three instances, employees handled the milk while ill with the disease. Two hundred and forty-three epidemics of (330) were recorded by English authors, 52 by American, 14 by German, 11 by Scandinavian, and 5 each by French and Australian writers. This is probably due to the fact that milk is consumed raw in England and America, but on the Continent it is rarely used without being boiled.

Kissing the Baby.

The editor of the Hospital is not in favor of kissing. He says it would be idle to attempt, in this generation at least, to put a stop to such a proceeding, and so far as it affects people who have arrived at years of discretion and have a say in the matter, it may go on for aught we care. The kissing of helpless children, however, is another affair. There can be but little doubt that by this stupid custom infection is often conveyed even from mother to child, and frequently from nursemaid to infant. But the evil extends much further, for the training which these much-beslaved infants receive during the first years of their lives sticks to them, and when they go to school leads to endless troubles.

These wretched little children are brought up to kiss whatever they love—a purely conventional mode of expression—and so they kiss each other. Poor little brats, receiving in return for their affectionate embrace infections which too often kill them! It is too bad. We do not say that a mother should not kiss her own child. Her baby is part of herself, and we suppose she must be allowed to do as she likes with it, although even a mother ought to bear in mind that her colds and sore throats are distinctly catching. But for strangers to kiss a baby is a piece of abominable impertinence. The whole business ought to be put a stop to. Think of the horrid moment when the adored baby toddles forward with its mouth up waiting to be kissed! And so far does folly go that most mothers would actually be offended if the visitor failed to respond to baby's "sweet advances"—very sweet—sometimes absolutely sticky! The fact is that kissing is the very antithesis of sanitary decency. To "engaged" young people it may perhaps be permitted as a foretaste of that more complete union which they hope to arrive at. But among others it ought to be regarded as an outrage, and to impose such a rite on helpless children and thus to teach them to pass on their infections to those of their infantile

companions whom they most love should be regarded as an unforgivable sanitary sin.

Laminectomy in Fracture of the Spine.

Laminectomy must often, at first sight, appear so reasonable and hopeful a proceeding when symptoms of pressure upon the spinal cord are associated with those of fracture of the spine, that it is well to look at the other side of the question lest we should be led by surgical enthusiasm into adventurous but useless operative measures.

In a clinical lecture delivered at St. George's Hospital, Mr. Clinton Dent (The Hospital) points out the hopelessness of laminectomy in any such cases,even though one succeeds in reaching definitely the bone which is pressing on the cord. For the mischief has been done,and the destruction that has already been produced is often so great that recovery is out of the question. The case is not analogous with one of trephining of the skull. In the brain there is so to speak, brain tissue to spare, but that is not the case with regard to the spinal cord. Then it by no means follows that the main injury to the cord will be at the same level as the fracture of the bone.

Very seldom indeed will it happen that a portion of the lamina has been driven right into the spinal cord. In such a case it would, no doubt, be right to remove or raise up the offending piece of bone; but even then, although the mechanical condition be completely removed, the benefit will probably be far less than in a case of compressed or wounded brain. Myelites may readily supervene, and in any event the recovery of the cord to a sufficient degree to discharge usefully its functions would be highly improbable.

In a case where a severe blow had been received on the back from a sharp-edged instrument, it might be proper to cut down on the part in the hope of doing some good. But in a diffused injury, such as results from a fall from a height, it is almost certain that the fracture will be found in the bodies of the vertebræ, and that if the lamina is broken at all, the fragments will not be found to compress the cord.

Mr. Clinton Dent said that he saw many cases in South Africa of gunshot wounds of the spine, which were frequent, because the wounds were so often rceieved while the men were lying down facing the enemy. It had been hoped that surgery might do much for these injuries, but such hopes had been altogether disappointed. He related details of a case which showed that the passage of a high velocity bullet though the spine might, even without opening the theca, produce such tremendous vibration effects as to cause hopoless injury to the nerve tissue. In this case "the cord was not directly injured by the bullet, which had merely passed close to it." But it was pulpified all the same, and "if we had taken away every scrap of bone that might have compressed the cord in that soldier. the operation would have done no good." Brilliant as has been the results of laminectomy in some cases of new growth, the huge majority of traumatic cases seem to be as far as ever removed from the domain of practical operative surgery.

Injections of Crude Petroleum to Relieve Fecal Impaction.

Dr. W. M. Roberson (American Medisine) says; "It is not at all infrequent to find that high injections of water, olive oil, or any other of the liquid injections commonly used for obstruction of the bowel are of little use, and various directions are given for overcoming the trouble. As a rule, the trouble is simply due to the inability of the fluid used to penetrate the hardened and almost water-and-oil-proof fecal mass, so that it may become movable. Physicians of the 'oil regions' have found out by experience that the common crude oil as it comes from the wells is the best solvent known for the disintegration of these masses. There is no fecal mass which it will not penetrate and soften. One quart of the oil should be introduced through a colon tube and allowed to remain for twelve hours. There is usually no trouble about its retention. This treatment has been found to succeed aftsr the most energetic use of water and sweet oil and glycerin failed to give relief. The crude oil has also been used internally, and there seems to be no reason why it should not be given by the mouth in conjunction with the rectal inecjtions for obstipation. In that case it should be given with castor oil."

Lady Physicians.

The demand for lady physicians has greatly increased in recent years. There are said to be now 6000 of these in the United States alone. In English countries there are 396 lady physicians. Many of these connect with their medical work that of administering spiritual consolation, thus giving counsel for the soul as well as for the body. The first lady physician was Elizabeth Blackwell, who graduated as such in 1849. Three years later Philadelphia boasted of six lady doctors. In 1889 there were 3000 registered in the United States. The first lady physician in France

was Madeline Bres, who graduated in 1875, and there are now eighty-five in that country, seventy-one of whom are practising in Paris. Under Lady Dufferin's influence, hospitals in India entirely in charge of women, increased to thirty, as early as 1888. In 1896 the number had swollen to 133. In 1894 the Sultan of Turkey forbade women to study medicine in his dominion, but foreign lady physicians are yet permitted to practice there. Egypt has two lady doctors, twenty are in Italy, while Romania, Norway, Sweden, Denmark, and Finland each have lady doctors, who are doing good work. In fact, lady physicians are no longer an experiment, but are fast becoming an important factor in moral influence. No one is better fitted to become just what a physician should be—an angel of mercy to the afflicted—than a Christian lady. Gentle by birth, and refined by proper education, she may exercise the most benign influence upon those with whom she comes in contact, even to the salvation of their souls.

Laceration of the Perineum

Twitchell (New York Medical Journal, Dec. 28, 1901) says that it is common to think of a tear as a split from the fourchette backward. This occurs in slight tears, but not often in serious ones. Usually the perineum gives way at once. When a child is to be born, this oval opening is not stretched as by an entering wedge, but by having the lower end pushed away from the upper. If in swinging the head, as it extends, it slides on the perineum, the space between the pubes and the fourchette will increase; if it does not slide, the opening will not increase and the perineum will follow the motion of the head, causing decided stretching, but not enlarging the opening. Hence the importance of keeping in the vagina a lubricant which aids it. The natural lubricant is the best and should not be lessened by douches, too frequent examinations, etc. Artificial lubricants do not replace the natural one. Delaying a precipitate labor by chloroform will save the perineum in some cases, and in protracted labor the use of forceps and extraction between pain may be sufficient. The principal thing is to keep the head from coming through too quickly. Three elements are to be considered in the prevention of laceration: 1. The head should be presented in its smallest diameter. The bladder and rectum should always empty so as not to take up the space. The patient must refrain from the use of voluntary movement at this time. The attendant should retard a too preceptible progress of the labor. In many cases the modified Walcher position is of value in protecting the perineum by its relaxing effect and permitting easy and constant observation.

Walker believes in anesthesia for preventing voluntary muscular contraction and to lessen involuntary ones, and it may be necessary to carry the anesthesia to a surgical degree during the last few minutes. Many perinea are torn after the expulsion of the cranium by too sudden extension of the head. He avoids this by keeping the head fixed completely until its largest diameter has escaped under the arch. The posterior shoulder should always be looked after, by causing lateral flexion of the trunk.

The cause of laceration, according to Andrews, is the continuance of the powerful force after its necessity has been passed. The most frequent direct cause is imperfect flexion of the fetal head, and decided disproportion between the presenting part and the outlet, or where faulty mechanism is present, and the presenting part is pushed too far posteriorly, and not allowed to emerge safely under the pubic arc. Finally, old lacerations are liable to induce severer ones. The whole subject of prevention may be summed up: 1. Patiently and persistently endeavoring to bring the longest diameter of the presenting part in relation with the longest diameter of the outlet. 2. Securing perfect dilatation of the soft parts of the outlet. The abdominal muscles play by far the most important part in the expulsion of the head and it is an advantage that we have them under our control. He believes in the use of chloroform in theses cases. The advice to support the perineum is accountable for many lacerations of the perineum; it is not the perineum which needs support, but the head, until the muscle structures have been stretched. Position is very important; he thinks the lateral better than the dorsal. The parts should be accessible to sight and touch. Forceps in certain cases are of value; for the correction of certain errors in mechanism, over-flexion or over-extension, they are the best means available. Episiotomy is not advised and is considered ineffective. Lacerations by the shoulders are less excusable than those by the head. If undue haste is avoided and the head lifted upward, one shoulder will be behind the symphysis, while the other is safely borne over the perineum.

Mucous Disease of the Intestines.

Francis Hawkins (Edinburgh Medical Journal, Nov., 1901) says that the disease may assume 3 forms, which may be regarded as indicating either 3 distinct types, or

three stages of the disease: 1. The cylindrical. The mucus is expelled in the form of cylinders, brownish, red, or pink, turning pale when washed. They are passed after the fæces. 2. The tubular. The mucus is in the form of tubes, sometimes appearing as membranous casts of the bowel. The tubes passed in the earlier stages are usually larger and narrower than those passed later. They are usually a brownish color. 3. pellicular or hemorrhagic. The mucus is passed in pellicles along with the contents of the bowels. Hemorrhage is frequent, and may be profuse. The symptoms consist of great pain, which may be abdominal or rectal, possibly retching, sickness, and vomiting, with ether signs given by the author in detail. He also gives the treatment for the various forms or stages of the disease.

Morphine and Atrophine in Cardiac Dyspnœa.

Dr. Graham Steel (Quarterly Medical Journal) says:

"I will conclude with reference to a treatment that is too often also the conclusion of our therapeutic endeavors. I refer to the relief of dyspnœa and the promotion of euthanasia by the hypodermic administration of morphia and atropia, but do not think there is any throwing up of the sponge when we have recourse to it. Only within the last couple of months I had a patient, with aortic incompetence and complications, in the infirmary, who seemed not likely to live half a dozen hours, and whose friends had been so informed. His distress of breathing, etc., was great, and I ordered him a hypodermic of morphia. He began to improve almost immediately and is now unquestionably convalescent. Every now and again we meet with such a result. Paroxysmal dyspnœa is the symptom that specially indicates the use of morphia, and such dyspnœa is often found to be associated with considerable arterial tension. At first nitrates and alcohol give relief, but later we must have recourse to morphia and atropia. As conditions that militate against the use of morphia, I think much accumulation of bronchial secretion is a stronger contraindication as regards its use than kidney disease. Indeed, some cases of heart failure in Bright's disease derive great benefit from its use and stand fairly large doses, but the first dose should always be small; one must feel one's way to the dose that brings relief without risk.

"One thing is essential for the practitioner who treats heart disease, it is that he should never know when he is beaten while his patient is alive. When his patient is dead, he should at least have the consolation of having fought a good fight on his behalf."

Movable Kidney With Renal Colic: Nephrorrhaphy: Cure.

Cole-Baker (British Medical Journal, Nov. 30, 1901) reports a case aged 45, with 5 children, who had suffered for six or seven years, from uncomfortable sensations in the abdomen with periodical attacks of acute pain in the left lumbar region shooting down to the groin. On palpation the left kidney was found to be freely movable, but as the urine had no pus, blood or casts, an abdominal belt with a pad on the left side was tried and gave great relief. However, the periodical attacks of pain still recurred from time to time with increasing frequency and severity till in August, 1898, the attack was so severe that she fainted, and was with difficulty brought to. After each of the attacks, Dr. Baker says: "I examined the urine myself. and had it also examined by the Clinical Research Society, but without any evidence of stone.

However, after the severe attack in August she consented to allow me to operate and discover the cause of these attacks. On September 22nd, 1898. by means of the ordinary incision, I exposed the kidney. and finding the pedicle was sufficiently long, was able to draw it into the wound. The kidney looked perfectly normal in appearance and size, but was rather loosely attached in its bed to the fascia of the quadratus lumborum and psoas muscle. No stone could be felt externally in the pelvis of the kidney or in the substance. The kidney was split open by an incision to the pelvis, and the substance carefully examined. The ureter was palpated carefully to the brim of the pelvis, but no stone was found. Three sutures were then passed through the cortex of kidney. The kidney was then sutured to the top of the incision as high up as possible, the wound closed, and a drainage tube inserted. The tube was removed on the third day.

For a fortnight the case ran an uninterrupted course to recovery, the temperature never being over 99.4 deg. At the end of the fortnight the patient had a rather sharp attack of cystitis, due, I am afraid, to a catheter not being thoroughly sterilised. However, this attack ended in a week. and the patient left the home twenty-three days after the operation.

It is now three years since the operation, and there has been no return of the symptoms, the periodic attacks of acute pain having entirely disappeared The only

explanation of these pains that I can find is that the kidney was so loose in its position that at times it caused a kink in the ureter, and that the urine, being unable to reach the bladder, caused these attacks of pain simulating renal colic from a calculus, acting in the same way as a full bladder which cannot be emptied in consequence of a stricture or any other cause, or that the kidney by its loose attachment twisted the ureter and thus caused a similar obstruction.

I have mentioned this case, as the fixing of the kidney was made by passing silk sutures through the cortex of the kidny, and not by suturing the capsules. Three years have now passed, and there is no evidence that these silk sutures have cut through, as is alleged against this mode of procedure.

Operations for Stone.

Adams (Cutaneous and Genito-Urinary Diseases) treated 161 cases in less than two years, in India. He says the contraindications to lithotrity in boys are: 1. When there is marked cystitis; lithotomy drains the bladder and cures both diseases. 2. When there is much difficulty in passing the instrument. 3 When the stone is too large or too hard for the necessarily small instrument. 4. When there are indications of advanced kidney disease or of great debility, the shock of the cutting operation seems less severe, probably because it is shorter. The contraindications in men are: (1). When the instrument cannot be passed. (2). When the stone is too large and cannot be grasped.

He did not find a stone too hard for the lithotrite. In tight strictures perineal sections served both for the stricture and for introducing the crushing instrument. He found that in lithotrity the injection of a drachm of sweet oil into the urethra before beginning operation gave an advantage. In boys over fourteen a full-sized lithorite was used.

The mortallity was considerably higher in the lithotomies than in the lithotrities. In thirty-six operations of the former there were three deaths, while the latter in 101 operations were only three deaths.

There were nine cases of urethral calculus, of which four were extracted through the metus, three after incision of the meatus, and two by external urethrotomy (one perineal and one penile).

In the lithotmies the patients were from three to seventy-five years old. The stones weighed from 70 grains to 4½ ounces. In the litholopaxies the ages ranged from one and a half years to over eighty years. The stones weighed from 1½ grains to 4 ounces.

Paralysis, Tendon-Grafting in Infantile and Spastic.

Tubby (Pediatrics Oct. 15, 1901): Of 11 cases of tendon-grafting for paralytic talipes, 6 have shown good results and 5 fair results, meaning by "good" where the results aimed at had been fully attained and the improvement permanent, and by "fair" where a partial improvement has been secured. In no case has failure resulted. The results of the four operations in the forearm for spastic trouble have been good in 3 and parital in 1.

Tendon-grafting is an operation with a future before it, and it has great possibilities, but it must not be employed indiscriminately. It is useless in cases of flail-like joints, where all the muscles are badly affected, and it should not be employed in slight cases of paralytic valgus or varus or in slight equinus, the last being easily remedied by sections of the tendo Achillis. It is not an operation for the display of anatomical knowledge nor of mechanical skill in operating, but one requiring the nicest care in the selection of cases and of the muscles to be employed and careful watching of the results of the operation for several years afterward.

The Theory of Compensation in Disease of the Mitral Valve.

Dr. T. Stacey Wilson (British Medical Journal, Dec, 21, 1901) read a paper at a meeting of the Edensburg Medical Society in which he laid down the following propositions: In mitral incompetence:

I. The process of compensation necessitates dilatation of the cavity of the left ventricle, as well as hypertrophy of its walls, and the amount of dilatation in the compensated heart is directly proportional to the amount of blood which regurgitates into the auricle at each beat of the heart. As mitral incompetence involves the leakage back into the auricle of a certain part of the contents of the ventricle at each beat of the heart, it therefore follows that in order to compensate for this leakage and allow of a normal amount being thrown into the aorta at each beat: (1) The ventricle must enlarge so as to hold both the normal amount and that which will escape back into the auricle; (2) it must thicken its walls so as to be able to move this additional volume of blood: (3) the theory of the enlargement of the ventricular cavity as follows: On the first occurrence of regurgitation through the mitral valve a progressive over distention of the auricle will theoretically results from the leakage of blood back into that chamber. As soon, however, as the size of the auricle exceeds that of the

ventricle, the latter will during its expansion be drawing toward itself more blood than it can hold; and the momentum of the blood which cannot find entrance will tend to dilate the cavity of the ventricle. In this way the ventricle will be dilated by its own aspiratory force until its size is comparable to that of the auricle. This will not occur until the ventricle is large enough to hold the full amount of the leakage in addition to its normal contents.

II. The dilatation and hypertrophy, which can compensate for the defective working of the left ventricle during systole, will according to this theory, also relieve the auricle from embarrassment during diastole by ensuring the proper filling of the ventricle. For (1) since the enlarged ventricle is able to accomodate all the regurgitated blood in addition to its normal contents, it follows that it will be as easy for the abnormal amount of blood to enter the abnormally large ventricle as for the normal amount to enter the normal ventricle. And (2) the increased muscularity of the enlarged ventricle will ensure the slight addition to the aspiratory force which is required to draw the larger amount into the ventricle.

III. Therefore by the time the expansion of the ventricle has ceased, the auricle will have been relieved of all the regurgitated blood, and only the normal amount will remain to be dealt with by it.

IV. Therefore in fully - compensated mitral regurgitation no extra work will be thrown upon the left auricle, and there will be no embarrassment of the pulmonary circulation, and no accentuation of the pulmona y second sound.

V. Neither would there be any dilatation of the left auricle unless the regurgitation were extreme. Since the systole of the auricle and of the ventricle togethe occupy one-half of the cardiac cycle, it follows that only one-half of the full volume of blood will normally enter the auricle during this portion of the cycle. Therefore there will be room in the auricle during the ventricular systole for any amount of regurgitated blood up to one-half of the total quantity put into circulation at each beat. If, on the other hand, the amount of regurgitation were to exceed one-half of the normal output of the ventricle there might be dilatation of the auricle, even when compensation was fully established.

VI. According to this theory of compensation there ought to be a slight increase in the loudness of the aortic part of the second sound, because the greater expansive force of the hypertrophied and dilated ventricle will induce a more powerful recoil of the blood in the aorta, and will result in a more powerful closing and stretching of the aortic valves than in the case of the normally-acting ventricle. In mitral stenosis, according to this theory, the left ventricle increases its aspiratory power in order to facilitate the entry of blood through the narrowed orifice, and so establish compensation. This is brought about as follows:

VII. In mitral stenosis the left ventricle contracts with greater force than normal in order that the rebound, both muscular and elastic, may be correspondingly increased. (1) An evidence of this is the increased loudness of the first sound which occurs in mitral stenosis. (2) Temporary embarrassment of the circulation is accompanied by an increase, often excessive, in the loudness of the first sound, which lessens again as the circulation improves. (3) This increase in the force of the ventricular contraction is also suggested by the occurrence of the hypertrophy of the left ventricle which is not infrequently noticed in mitral stenosis.

VIII. The left ventricle alters its beat. Its contraction terminates with greater suddenness and force than normal. This concentration of ventricular effort at the termination of the systole has the effect of futher increasing the force of the ventricular recoil which immediately follows the systole, lasting as it does only one-tenth of a second. (1) This is the explanation of the sharp and loud end of the first sound which is so characteristic of mitral stenosis. (2) The characteristic cardiographs of mitral stenosis often show a more sudden recession of the heart from the chest wall at the end of the systole than in the normally-beating heart.

IV. As a result of this additional aspiration the auricle can be relieved of much, if not all, of the additional work which the narrowness of the mitral valve entails. We find very frequently an absence of dilatation of the left auricle in mitral stenosis where compensation was perfect at the time of death.

X. Therefore, in compensated mitral stenosis, if the narrowing be not very excessive, no extra work is thrown upon the right side of the heart, and there is no engorgement of the lungs. (1) As evidence of this, we find the pulmonary second sound of normal loudness, even in cases of severe mitral stenosis. (2) We find that the accentuation of the pulmonary second sound, which is characteristic of failing compensation, gradually lessens as compensation improves. (3) We may find no clinical evidences of pulmonary congestion or engorgement even in severe cases of mitral stenosis.

XI. We may also expect some increase in the loudness of the aortic second sound, apart from that due to increased arterial pressure, because of the increased ventricular aspiration, as suggested in Proposition VI.

Treatment of Larnygeal Growths in Children.

G. Hunter McKenzie (British Medical Journal, September 28, 1901) says thyrotomy is unsatisfactory on account of injury to the voice, the predisposition of the tumor to recur, and the danger of chronic stenosis of larynx. The endolaryngeal operation is objected to on account of the difficulty of carrying it out thoroughly in children. He prefers tracheotomy, leaving the growths to care for themselves. In time they disappear spontaneously.

He reports seven cases which have been treated by this method. These patients were under his observation for a minimum period of two years. Four completely recovered after using the canula six to fifteen months. One had previously undergone thyrotomy under another surgeon, and the growth disappeared after wearing the canula two and one-quarter years. Another, a very poorly nourished child, died from independent disease about two years after tracheotomy.

The seventh case was tracheotomized for sudden laryngeal stenosis. The canula was withdrawn after one year, and the result was most satisfactory. The author then quotes several cases which have been reeorded, and showed marked benefit from tracheotomy. He says the operation is indicated wherever complete and permanent aphonia is present. It is not considered necessary to wait for the onset of dyspnœa before operating.

Lobar Pneumonia.

Stockton (Medical News, December 28 1901), believes pneumonia to be a toxemia. Not every part of the patient's system resists it; the weakest one is apt to be the heart, or the blood-making organs may fail to react and we have a lack of nature leucocytosis. There may be a secondary toxemia develop from a crippling of the liver and kidneys and the nervous system may be so injured that rest is impossible. The functional activity generally is handicapped. We know, however, a few measures that can be tried in almost every case; one is a prompt calomel purge; another is the treatment of the skin, though we differ in our methods. He invariably employs hot mustard foot-baths following sponging. The general circulation requires attention and these methods relieve high pressure. The depressing drugs are but rarely needed. He has seen great benefit follow the cold bath after the method of the Brandt treatment. Depression of the heart is still more to be feared and his method of meeting this is to strengthen it if possible by the use of strychnia, giving it early, beginning with 1-30 of a grain every two to four hours and increasing it up to even 1-10 gradually if the condition demands it. Baths, nourishment and medication should as much as possible be given at about the same time that they may not interfere too much with rest. The patient should not be disturbed too much even if he sleeps beyond the expected hour, but the nurse should be ready the minute he awakes to prevent depression, nervousness, etc., by prompt administration of nourishment, strychnia and other stimulants, if necessary. We must also bear in mind that pneumonia is a local process, and he thinks it a source of satisfaction when hepatization of one lobe appears early in the disease. Delay appears to increase the toxic action. It is a good plan to give an additional dose of calomel, to press the hot foot-bath, support the increase in the strychnin and resort to local measures to decrease the pulmonary congestion. The best method is blood-letting, 4 to 6 ounce of blood from the arm and then use dry cupping very thoroughly over the threatened area. The cup should be large and the suction strong so that a decided impression is made, and liberal inhalations of oxygen have also tided the patient over the eminent danger.

Lobar pneumonia is a disease that needs almost the constant presence of the attending physician in the severe cases, not in the mild ones which have a tendency to abort early. There is one particular condition in which counter-irritation is advantageous, and that is where there is delayed resolution. He has seen immediate improvement occur after failure of other methods by the use of a large fly-blister. He thinks that we are not yet ready to dispense absolutely with counter-irritation in pneumonia. Finally, experience teaches him that the great fatality of senile pneumonia is mostly from the unusual toxema, because of the inadequate functional activity of the organs of elimination. If, with stimulating, we at the same time sweat the patient and assist hepatic and renal secretion by proper means, our results will be better.

Malarial Nephritis.

Ewing (Amer. Jour. Amer. Sci., October, 1901) believes that the occurrence of acute nephritis in malaria is well recognized, but there are many features in con-

nection with its pathology which are not as yet sufficiently immediately familiar to the profession. He states that the acute nephritis of malaria is hardly ever immediately fatal, so that the chances of investigating the so-called cases of exudative nephritis are rare. In many cases there are considerable albumen casts and blood cells in the urine and less often œdema or signs of uræmia, so that it is quite probable that a true exudative nephritis is sometimes present. In cases of fatal pernicious malaria the conditions found in the kidney have been very uniform, consisting chiefly of severe acute degeneration of the cortical tubule cells, with moderate exudation of albumen into the tubules and glomeruli, the nephritis thus appearing to be toxic in origin. In very few cases have parasites been found in the kidney, though numerous in other organs. He believes that the freedom of the kidney from parasites cannot be altogether due to the phagocyte powers of this organ, as these are but slight. The case under observation was that of a girl, aged 17, a Slav, who contracted severe malaria in September, 1900, in Long Island. There was slight œdema of the legs; urine high colored, acid, 1018, urea 2½ gr. per oz., albumen 2 per cent., no sugar, epithelial cell and many blood cells. The case was considered to be one of typoid fever with acute nephritis. Malaria was first suspected on account of the pigmentation of the kidney. The following summary presents the lesions observed in the kidneys: Extreme and peculiar degeneration of the lining cells of all cortical tubules. Distention of capsules of glomeruli by granular albuminous coagulum. Occlusion of most cortical capillaries by the distended tubules. Large superficial red and white infraction from occlusion of vessels by thrombi of infected red cells. Numerous miliary hæmorrhages, from rupture of distended capillaries. Distention of nearly all capillaries in medulla and papillæ by infected red cells and parasites. Casts discharging tubules consisting usually of coarsely granular material, but sometimes entangling infected red cells and pigmented leucocytes.

Dr. Ewing points out the importance of diagnosis during life of this type of malarial nephritis. The chief points are partial or complete suppression of urine; considerable admixture of intact red cells; the considerable proportion of albumen; the presence of many coarsely granular, epithelial cells, and some blood casts; the presence of infected red cells, both free and adherent to casts, and of pigmented leucocytes adherent to casts. The writer's case demonstrates the existence of a specific type of malarial nephritis, but does not indicate why the æstivo-autumnal parasite selects certain viscera for its chief attack. He concludes by stating that the forms of nephritis met with in conjunction with malaria may be grouped under three headings: (1) Acute degeneration of toxic origin, often reaching a degree in which exudation of blood serum into the tubules is added. The lesion responsible for the vast majority of cases of albuminuria in malaria. (2) An extreme form of acute degeneration, with focal necroses, numerous hemorrhages, and exudation into the tubules of blood serum and blood pigments. This lesion is seen in cases of hemoglobinuric malarial fever, and it has not yet been found associated with an excessive number of parasites in the capillary vessels. (3) Massing of parasites in the renal capillaries with extreme degeneration of parenchyma cells, multiple hemorrhages, and exudation of blood serum into the tubules. It seems certain that this type of lesion can occur only in severe æstivo-autumnal infections.

Nervous Factor in Cutaneous Diseases.

Malcome Morris (New York Medical Journal). An etiological factor which beyond all doubt plays an important part in the causation of the skin diseases of one kind or another is disordered function or actual lesion of the nerves. The difficulty is to define its sphere of influence. In one or other of these ways the nervous system is accountable for zona, erysthema, pemphigus, scleroderma, and various forms of cutaneous œdema, hemorrhage, or ulceration. Reflex irritation of the vagus—by the presence in the stomach of shell-fish, strawberries, or other food noxious to the individual—will cause urticaria. A defect of innervation in any part of the skin surface lessens the power of resistance in the place and opens the way to microbic invasions. This is probably the explanation of many cases of eczema, lichen, and other affections. Or, again, an existing disease be greatly aggravated by supervening nervous disorder. The affection itself may be trivial, but the force of the nervous explosions which it causes may transform it into a formidable disease. Or the nervous disorder may find expression in intense cutaneous irritation, making the patient's life almost unbearable and threatening to destroy his reason without leaving a mark on the skin, except those made by his own nails. In these days of nervous overstrain such neuroses of the skin are very common, and they are among the most distressing cases that a dermatologist can be called upon to treat.

On the Necessity for Special Study and Experience in Treating Children.

Frederick A. Packard (Boston Medical and Surgical Journal, Dec. 19, 1901) points out that the way in which a child is handled differs decidedly in accordance with the familiarity with, or strangeness to, children on the part of the examiner. In addition to this it is very frequently the case that one dealing with the adult alone soon forgets intuitively to observe certain appearances in the child which, by one used to handling children, are noticed at once as a matter of course. One should remember that a child is not a man cut down, and should not forget how great a significance the diminutive size has in the severity of certain lesions. The attitude should be observed, e. g., the slight retraction or rotation of the head in meningitis, the grotesque attitudes of scurvy. The character of the cry is often diagnostic, and the cries of fretfulness, hunger, colic, and painful dentition, are as distinctive as are the spoken complaints of the adult. From the character of the respiration we can learn fully as much as in the adult. The cough is, of course, frequently characteristic of certain conditions, yet it would be oftentimes a great comfort were we able to determine definitely from the character of the cough whether we had to do with pertussis or with enlargement of the bronchial glands. The puffy, lacrymose appearence of the face, seen in measles and in whooping-cough, receives but little mention in the text-books, but is, nevertheless, characteristic; and, in measles, is often seen before the exanthem is visible.

Physiological Cure of the Morphine Habit.

Jennings, (London Lancet, No. 4067) in describing this condition in 1890, declares that up to that time no treatment of the craving existed founded upon therapeutic indications. The usual way of dealing with the patients was to withdraw the drug either suddenly or gradually. As a result many of the unfortunate died, some committed suicide, and the rest, after intense suffering, again fell victims to the drug.

He found that the misery and wretchedness of the habitue were always intensified by certain dietetic and hygienic errors that he usually commits and that could easily be avoided. During the next ten years the observations accumulated and strengthened this view, and the author now states confidently that the morphine habit can often be prevented and cured, provided the proper line of conduct is strictly followed, and provided also that a cure is really desired by the patient. This is often not the case in those presenting themselves for treatment under pressure from relatives, etc. Such a habitue will invariably relapse as soon as his sufferings are alleviated.

There is a class of patients who desire to be cured and who even have no real craving, but suffer from an "hysterical neuromimetic craving." Great tact and caution are required in treating these cases. They should never know how much morphine they are taking; otherwise, if they hear of a reduction, distressing symptoms appear.

Supposing that we have a patient who is sincere in his desire to be cured, the first step for him to take is to renounce all liberty of action and to surrender his syringe and solution. Should the morphine be associated with another drug, the latter—which is generally a stimulant—must be suppressed at once. Alcohol or cocaine can be easily stopped, for as a matter of fact the morphine acts more strongly when the antidotal stimulant is withdrawn.

Dr. Jennings thinks it is possible to wean the habitue by a sufficiently slow and gradual reduction without any other treatment. Of course it is necessary to individualize. The reduction must be slow enough to cause no distress.

However, other measures are at our disposal, and with docile patients a cure may sometimes be effected in ten days or two weeks. It is advisable to change the mode of exhibiting the drug as soon as possible. The rectal injection should be substituted for the hypodermic from the moment the patient is reduced to 2 grn. by the skin. Two grains seem to be the vital requirement. This quantity is absorbed; any surplus may be detected in the urine. As a rule, it is not possible to descend below 2 grn. without causing distress, and at this juncture the rectal administration should be resorted to, and double the dose given. Though 4 grn. will thus be taken, a great point is gained—the patient has renounced his syringe. The syringe is used on the slightest pretext; the rectal injection is an altogether different and troublesome affair. There is no sudden stimulation derived, the effect is gradual, the procedure inconvenient, and possesses none of the elegance and fascination of the syringe.

It is now that the appearance of any abstinence of symptoms must be prevented, while a gradual reduction of the rectal doses is going on. Among the phenomena of vital depression following the suppression of the habitual stimulant, heart-weakness is prominent. Therefore, cardiac tonics are indicated in combating the craving for morphine. By overcoming the sluggish heart action, the necessity for the stimulant is considerably lessened. Sparteine has

shown itself most reliable in the author's hands as a cardiac tonic.

Another important factor is the hyperacidity of the stomach and organism, this suggesting the administration of sodium bicarbonate. The bicarbonate relieves the craving in so far as it is caused by hyperacidity, and this is not to be underrated.

The third of the author's therapeutic measures is the hot-air bath. He does not claim any extravagant value for this measure, as others have done who advocated it as a specific; but employed in combination with the other remedies mentioned, the bath is certainly productive of good results. These are largely due to the tonic and sedative influence of the procedure.

A moderate and non-alcoholic *regime* is insisted upon, and occasionally a hypnotic is administered, as the case may require.

The oft-repeated statement that a periodical revival of the craving assails the cured habitue is denied by the author. If the treatment has been properly carried out, restoration of health will follow. The patients rapidly gain in weight, and a general physical recuperation takes place.

The ex-habitue is advised to indulge in active exercise, to take regularly Turkish baths, and in every way strive to keep up and promote the tone of his system. In this manner the after-cravings will be effectually prevented.

He reports in detail several cases in support of the soundness of his position.

Nephrectomy, Nephrolithotomy, and Lithotomy.

T. R. Jessop (British Medical Journal, Dec. 14, 1901):

Nephrectomy in Children.—The author has performed nephrectomy for tumor in young children in 11 cases; 9 were operated on by the lumbar method, and 2 by the abdominal. Of these 11 cases, 1 patient died before the completion of the operation, and 1 lived only seven hours, death being due to cardiac thrombus. Nine recovered from the operation, but all died within 3 years, the longest survivor living only 2 years and 5 months. In how many death resulted from recurrence of the disease, the author has no means of knowing. In estimating the value of this operation, we must be informed as to the duration of life in those reported "cured," or statistics will only mislead.

Nephrectomy in Adults.—Here the results obtained are much more encouraging, partly because the operations are usually performed for other conditions than those of malignancy, and in part because of the lesser degree of malignity usually met with in tumors of the adult and the consequent diminished liability to diffusion and recurrence. The author has operated upon 16 adults, of whom 6 had tumor, 3 calculous pyelitis, 4 tuberculous or other forms of non-calculous pyelitis, 2 fistula following nephrolithotomy, and 1 uncontrollable hæmorrhage after nephrolithotomy. Of the 6 tumor cases, there were 2 recoveries, 2 deaths within a few hours from shock, 1 death on the third day after operation of intestinal obstruction which enterostomy failed to relieve, and 1 death on the ninth day, from exhaustion. The 4 patients who died presented large tumors, and, in all, the transperitoneal method was the operation selected. Two men, aged respectively 63 and 61 years, and a woman, aged 34 years, were the subjects of sarcoma of the left kidney. The fourth was a man, aged 56 years, with carcinoma of the right kidney. Of the 10 adults on whom nephrectomy was performed for conditions other than that of tumor, 2 died and 8 recovered. Of the 8 who recovered, 3 were the subjects of calculous pyelitis, and had previously undergone nephrolithotomy, 4 were operated on for tuberculous or other form of non-calculous pyelitis after nephrolithotomy, and 1 for urinary fistula following nephrolithotomy. In each the lumbar operation was selected. The author inclines to the opinion that the lumbar operation is to be preferred for those cases in which sepsis is known, or is assumed to exist, and for those neoplasms in which the growth is of recent origin and of small or moderate size, while the larger renal tumors will be attacked from the front with more prospect of success in proportion to our increased knowledge of and attention to details in the operation itself, and to our ability to avert death from shock.

Nephrolithotomy.—Up to 1896 the author had operated upon 19 patients for stone in the kidney. In 5 no stone was found, in 1 a displaced stone was extracted from the perineal urethra, in 2 a severe hæmorrhage (fatal in 1) followed the incision over the stone, in 2 nephrectomy had to be performed for urinary fistula, and in 9 recovery was uncomplicated and complete. In none of these operations was the kidney withdrawn from its normal situation. Since 1896 the author has followed Morris's method of withdrawing the organ from its bed and of splitting the organ into two symmetrical halves. He has performed this operation in 5 cases with most satisfactory results.

Vesical Calculus.—In regard to operations for vesical calculus, the author has limited his practice since 1890 to litholap-

axy and suprapubic lithotomy; to the former, whenever he has found it reasonably practicable, irrespective of the age of the patient, and to a great extent to the size of the stone; to the latter whenever existing conditions were such as definitely to forbid the use of the lithorite and aspirator, and in a few cases in which the weight of evidence seemed to favor the shorter, if on the whole severer, measure. Perineal lithotomy is now all but relegated to the past.

The Practice of Bloodletting.

Briscoe (Clinical Journal) gives the following summary of bloodletting:

1. Careful incision; open the vein obliquely: rub limb if blood does not flow, and do the same to the other extremities; keep warmth to the body; to encourage the flow of blood give an inhalation of nitrite of amyl, either with wet-cupping or venesection pure and simple; after operation keep patient quiet in the recumbent posture and in a darkened chamber; administer milk and diluent drinks, and relieve the intestines with some suitable aperient.

2. In certain cases of heart disease, uncomplicated mitral regurgitation when compensation has become inadequate, there arises a gorged and distented right heart and lung with occurring hemoptysis. Six to twenty or more ounces may be removed in these cases. After the operation, drugs like digitalis and diuretics, which have previously failed, will complete the relief.

3. Sudden deprivation of pure atmospheric air from a healthy lung causes the right heart to became distended and paralyzed. This chemical origin of cyanosis is shown in bronchitis and in all gaseous suffocations, and the practice of bloodletting in these cases must be bold and thoughtfully considered. Venesection is thus the therapeutic agent.

4. To discriminate between two conditions: (a) When a patient is much choked, laboring hard with his breath, and moreover with his veins distended and the heart dilated, then bleeding is our sheet-anchor. It is obvious that with this state we get a small pulse, and when the distended right heart is emptied the pulse becomes full. (b) On the other hand, the patient is choked with bronchitis, but his right heart is acting well. His surface wears a leaden hue from the free circulation of venous blood in his arteries. The pulse is good, but of high tension from the quality of the blood contained in the arteries. The venous system and the liver are not engorged. Bleeding is not indicated in this class of cases, and is an instance of one of the errors and abuses of bloodletting. The right heart is quite able to take care of itself so far. As Dr. Hare ("Good Remedies out of Fashion") puts it, the right remedy in this class of case is the emetic. He says: "In suffocative bronchitis the effect of emetics is sometimes magical, and by their administration in such cases not only is immense relief given, but I verily believe—I am certain—that lives are saved." This, then, with respiratory stimulants is the proper treatment when the bronchial tubes are choked.

5. Avoided bleeding weekly people, brokendown old men, and drunkards. Venesection is also a doubtful agent in acute peritonitis, but a few leeches may give relief.

6. In capillary bronchitis and in pneumonia venesection may save lives; in the former, where there are signs of distention of the right heart; in the latter, when there is a large extent of lung involved with symptoms of cyanosis and heart paralysis. In pleurisy of a diaphragmatic nature venesection is indicated. In pericarditis and pneumothorax, bleeding in the former is useful when orthopnea, irregular pulse, distended jugulars, and arterial anemia are present, should these signs not depend upon excessive effusion into the chest; it is useful in the latter when there is arrest of circulation in the collapsed portion. Again, in thoracic aneurism and tumors of the mediastinum venesection is advisable, as it relieves painful tension and assists the action of iodide of potash. Only a few ounces should be allowed to flow so as not to impoverish the blood.

7. In acute nephritis and uremia bloodletting is sound practice.

8. In lumbago and certain forms of headache of a congestive nature. Dry cupping will be useful in the former, and bleeding, either from the nose, by leeches, or venesection, will give the necessary relief in the latter.

9. When symptoms of impeded venous flow are present in cranial affections, indicated by labored breathing, surface veins full, and face congested, venesection is to be practiced.

10. Bloodletting should not be practiced in a routine fashion.

The Physiology of Cycling.

Dr. L. Zuntz (Medical Press & Circular, Dec. 18, 1901), who has taken the trouble to collect the air expired by a cyclist for analysis, found that when travelling at the rate of fifteen kilometres an hour the energy

expended by the cyclist in 10% in excess of that liberated by a pedestrian walking at the rate of six kilometres an hour, while at twenty kilometres an hour the energy expended is close upon twice as great as that of the six kilometre an hour pedestrian. This extraordinary consumption of energy, associated as it is with comparatively slight fatigue, indicates cycling as the pastime *par excellence* for the obese. In common with most forms of muscular exercise cycling diminishes the amount of sugar in the urine of diabetes; and in moderate degrees of anæmia cycling markedly stimulates hæmatosis by actuating metabolism. Its usefulness in the lattet direction is limited by the ability of the weakened organism to have recourse thereto.

Speaking generally, whenever a person is strong enough to take walking exercise moderate indulgence on the cycle is permissible, not excepting persons suffering from heart disease, other than aortic, who are able to ride. Learning to ride is quite another matter, and it presents special dangers to cardiac and elderly persons on account of the excitement and risk of physical injury associated with the first attempts at attaining equilibrium on wheels. We hear little nowadays of injuries of joints, &c., as the direct consequence of cycling, as distinguished from falls, and it may safely be assumed that the cases placed on record were those of persons predisposed to arthritis. Nevertheless, faulty position may in certain subjects determine more or less troublesome disturbance of function. A pedal out of the true, for instance, may throw an intolerable strain on the ligaments of the knee-joint, just as an ill-shapen or ill placed saddle may determine genitourinary trouble. These, however, are not drawbacks inherent to cycling, any more than the prostration which results from immoderate feats of endurance or speed.

Prognosis of Apoplexy.

Aldrich (Cincinnatti Lancet-Clinic,) deals with this subject from 3 standpoints: (1) The prognosis as regards life and return to consciousness; (2) impairment of function; and (3) possibility of future attacks. In cases of apoplexy due to cerebral hemorrhage the majority recover from the first attack, hence one should ask if the patient has had previous attacks. The first is very liable to be followed by a second in from 1 to 5 years. The minority recover from the second stroke, but few survive the third. If a profound coma persists longer than 24 hours, a fatal prognosis is warranted and the same result may be expected if a sudden rise of temperature occurs after it has once approached the normal. If the initial fall of temperature is excessive or prolonged, or the reaction excessive and the temperature high, the outlook is serious. Convulsion, Cheyne-Stokes respiration, inability to swallow, and a very slow, very fast or an irregular pulse are bad omens; as are also vomiting, bedsores and bladder or bowel incontinence. In apoplexy from embolism or thrombosis, the onset, especially in thrombosis, is usually less sudden than from hemorrhage. Coma may develop slowly, and be prolonged to a week or more, and yet recovery ensue. Bilateral symptoms, respiratory disturbance, bed-sores and incontinence are of grave importance. The age of the patient, condition of the arteries and the presence or absence of syphilis or alcoholism should be taken into consideration in every case. The impairment of function depends upon whether or not there is actual destruction of nervous tissue, due to pressue or interference of the blood supply. The size of the lesion and its location are of the greatest importance. If the motor tracts are merely compressed, restoration of power is possible. This is not the case if occlusion of a blood vessel has caused softening of the brain. Failure to improve within the first week, early atrophy, spasticity, rigidity and contractions of the muscles are unfavorable omens. The intelligence is more likely to suffer when the lesion is on the left side. The liability to recurrence of hemorrhage is very great after middle life. In embolism this liability is not so marked. A proliferative valvulitis may, however, supply material for repeated apoplexies. Thrombosis is likely to recur, especially in atheroma.

Pleural and Pericardial Effusions.

Brown (Medical Age) gives influenza, rheumatic infection, and tumberculosis as frequent agents in producing pleural and pericardial effusions. A good resume of the physical signs of the 2 conditions and the diagnosis between them is found in the article, though some of the later points in pericardial effusion, such as the area of impaired resonance in the back and the obliteration of the cardio hepatic angle are not mentioned. The idea that a count of the red blood cells in the effusion may indicate a likelihood of purulent change ensuing is dubious, when one considers how frequently a certain amount of bleeding takes place during aspiration and the bloody exudates seen in tubercular and cancerous affection of serious membranes. As regards the indications for aspiration of a pleural collection, the author gives Pepper's rule

of, first, pleura full to the clavicle; second, fluid in both pleural cavities; third, dyspnea or cyanosis, and fourth, resistance to medical treatment for more than 3 to 4 weeks: Dieulafoy's "absolute indication," namely, presence (estimated) of 1.800 c.c. fluid in the pleural cavity is described by Brown as being considered to exist when inspiration is not audible and expiration remains as a faint scuffle. What exactly "albuminous expectoration" may be or why it should be considered a complication of aspiration is not clear. The diagnosis of pericardial effusion and difficulty in making the same, particularly when existing with an already enlarged heart, are also considered.

Remarks on Enteroptosis.

M. Einhorn (New York Medical Record) says that the corset seems to be an important factor in the causation of these anomalies, but the condition is found in young women who have never worn a corset, and in men. A constitutional weakness has been assumed by several writers, and a weakened condition of the abdominal walls appears to be a primary and most important factor. Although in many instances the weakness of the walls takes its origin in a congenital disposition to this anomaly, there is no doubt that cases are met with in which a congenital factor does not come into play. To the latter category belong those instances of enteroptosis which develop after rather sudden great losses of flesh, no matter what their cause; and also after abrupt changes in the volume of the abdominal cavity. The condition is by far more frequent among women, seventy among men and two hundred and seventy-seven among women in one series of cases. The patient often complains of a faint feeling or certain weakness after rising. There is considerable fatigue after slight exertion. A feeling of weight is often experienced in the lower half of the abdominal cavity, with a dragging sensation in the epigastric region. Flatulence, constipation, and frequent micturition are very frequent symptoms. These patients are, as a rule, thin and slender; the abdominal walls are flaccid, and the cavity appears to be too commodious for its contents. There is but little rigidity of the abdominal muscles, and when the patient stands, the lower part of the abdomen shows a round protrusion. Gastroptosis can be demonstrated by the splashing sound, inflation of the stomach with gas, and gastrodiaphany. The right kidney, both kidneys, the liver, and the uterus are also often prolapsed. The principal part in the treatment consists in the application of a well-fitting abdominal supporter, ample nutrition, and exercise. Electricity seems to be especially adapted, when administered intragastrically, to cases in which there are manifold functional disturbances of the stomach.

Suture of Wounds of Large Blood Vessels.

Halsted (New York Medical Record), points out that it is only during the last twenty years that the conservative treatment of wounds of large blood vessels has received attention. In 1762 Lambert, a surgeon of Newcastle, successfully sutured a wound of the carotid artery. No other attempt is recorded till Czerny, in 1881, sutured a wound of the internal jugular vein. The publication, in 1891, of the results of Jassinowsky's experiments revived interest in the subject. His experiments, 26 in number. were made on the carotids and abdominal aorta of dogs. The wounds sutured were longitudinal, oblique, and transverse. The results of these experiments showed that suture of a wound of a blood vessel, with subsequent healing, could be accomplished without much risk of aneurysm or hemorrhage, provided asepsis was maintained. Closure of the wound was found to be due to proliferation of the endothelium of the intima and of connective tissue cells of the adventitia. In 1894 Abbe experimented with end-to-end union of blood vessels, employing glass tubes placed inside the vessels. Murphy, in 1897, reported the results of experiments on animals showing the practicability of end-to-end union of arteries by suture. He also reported two cases—one of suture of the femoral vein and one of the femoral artery. In the latter case the cut ends were invaginated and sutured. Both patients recovered. He suggests the following indications for arterial suture: (1) All cases where ligature of the artery may cause serious nutritional changes in the parts supplied by the injured vessel (this is especially liable to occur when the corresponding vein is injured at the same time); (2) all wounds of large vessels caused by puncture, gunshot, or laceration; (3) operation wounds of large vessels, accidental or intentional, as when part of the vessel must be removed. In wounds involving no more than half the circumference of the vessel, simple suture is enough. When more than half the circumference is involved resection and end-to-end anastomosis by invagination is the best method. Experiments on animals have shown that after end-to-end anastomosis the vessel generally becomes obliterated by endothelial proliferation, but

that this does not usually occur till afte several weeks, during which time collatera circulation will probably have been established. The arteries in which suture is important are the oarta, carotid, iliac, femoral popliteal, subclavian, and axillary. Perfect asepsis is, of course, essential, and the operation should not be performed if the wound is septic. Halsted, in the case reported, closed the wound in axillary with catgut sutures passed through the two outer coats of the vessel. The perivascular sheath was also sutured and the wound closed without drainage.

Sterility of American Women.

Englemann [Ann. of Gyn. and Ped.] states that sterility, undoubtedly increasing everywhere to some extent, hand in hand with the well-known decrease of fecundity, has increased to an alarming extent in the United States as fecundity has diminished more rapidly than in other countries. From a sterility of 2 per cent. in the Eighteenth Century and a fecundity of five children to the marriage, conditions better than in any other country, and such as led to the Malthusian theory of superfecundation and the fear of overpopulating the earth, we have come, after a lapse of one century, to the other extreme—a sterility greater and fecundity less than that of the women of any other nation, unless it be France. He calls attention to the frequency of miscarriage and divorce as concommitant with and the cause of sterility. Barrenness is not due largely to physical causes, he thinks, but generally to intentional miscarriage or the prevention of conception. The tables show that the normal average of sterility among married women is 11 per cent. Under the most favorable conditions now found it is 2.5 per cent. In the American colonies during the Eighteenth Century it was 3 per cent. In the United States now it is 21 to 23 per cent., or 33 per cent. among college graduates. The average number of children to each marriage should be 4.5; French Canadians average 9; in the United States the average is 1.8, or 1.4 to college graduates. The average number of full-term labors to one abortion is 5.5; in the United States the proportion is 2.8 to 1. In the United States there are now 1.87 marriages to one divorce.

The Surgery of Pulmonary Abscess, Gangrene and Bronchiectases Following Pneumonia.

D. N. Eisendrath [Philadelphia Medical Journal, Nov. 9, 1961] finds that both acute and pulmonary abscess and gangrene following pneumonia may develop immediately, and chronic and simple putrid abscesses, with or without bronchiectases, are more remote sequelæ of both croupous and influenzal pneumonia, especially the latter. The most valuable points in the history are the etiology; the sudden expectoration after an apparent crisis of pure non-odorous pus in the simple abscess cases, or of fetid pus in the gangrenous variety. In the chronic cases there is usually a history of a pneumonia having preceded the condition at some considerable time previously, followed by expectoration of large quantities of pus, with exacerbations of fever, accompanied by emaciation and frequently clubbed fingers, etc. Signs of cavity are seldom present. The moist rales, especially of large metalic character, are the most reliable physical signs. The character of the sputum is also of great value, whether purulent or fetid. Elastic fibers are more frequently found in gangrene than in abscess, being comparatively rare in the latter. The X-ray is only of confirmatory value, as it shows chiefly thickened areas of lung, and should not be absolutely relied upon. When it shows a shadow at the same point where the physical signs are present, it is of value. The prognosis of abscess and gangrene following pneumonia, medically treated, is not very favorable. Many cases of both varieties can be successfully treated in a surgical manner by pneumotomy. One of the greatest difficulties is the exact localization of the focus.

The prognosis for the chronic cases is not so favorable. The patients are usually operated upon when in an emaciated condition, and the walls of the cavity are often rigid, so that they do not contract well after being drained, and the free commnnication of a bronchus with such cavities is also a great barrier. But statistics in this variety are also improving, especially when combined with excision of the affected portion of the lung.

The Symptoms and Treatment of Movable Kidney.

Henry Morris [British Medical Journal, Nov. 30, 1901] describes what he includes under the term movable kidney, not its normal mobility in respiration, and alludes to the difference of opinion in regard to its frequency, being, according to clinical observers, between 1 and 46 per cent. in the female sex, and, according to some *post-mortem* records, in fewer than 1 in 1,000 subjects. He then describes how abnormal mobility was best ascertained to exist—by a method of bimanual palpation of the flank, particularly during long-drawn inspiration followed by sudden expiration, as in a long-drawn sigh. In addition to the

physical signs the usual symptoms of movable kidney were pain, persistent or paroxysmal; digestive disorder, as vomiting, colic and constipation, neurasthena and hysteria; while occasional symptoms were urinary changes, as polyuria, and compression or dragging effects such as intestinal obstruction or gastric dilatation. The question of the influence exercised by a mobile, ectopic, or prolapsed kidney in producing any of the gastro-intestinal and nervous symptoms ascribed to it was then discussed. According to one view ptosis of the kidney was secondarily associated with ptosis of the intestines, and the gastro-intestinal symptoms were attributable to the primary condition. Contrarily, as he held, renal ptosis existed independently of other visceral ptosis, and cure of the kidney mobility abolished the gastro-intestinal symptoms, while the treatment suitable for enteroptosis was not sufficient in many cases to influence the symptoms due to movable kidney. In reference to the treatment of movable kidney, it was pointed out that in many cases the symptoms were so slight that none was necessary. The danger of applying bandages and pads before the kidney was replaced in its normal position was emphasized. The value of prolonged recumbency was very small. The only operation justifiable was fixation of the kidney or nephropexy, the average mortality of which was a little over 1 per cent. Where enteroptosis was associated with movable kidney, no operation should be performed on the kidney unless the more serious symptoms could be ascribed to it alone. If both kidneys were movable, the second should be fixed after an interval of a week, so that there might be a conjoint convalescence. In the presence of neurasthenia or hysteria all palliatives should first be tried, and the friends should be warned in accordance with the fact that a cure was obtained in only about half of such cases. In all uncomplicated cases where the chief symptoms were pain and gastro-intestinal troubles, fixation might be confidently advised and at once carried out. If renal crisis were a feature of the case, the operation ought to be strongly urged, because of the impossibility of keeping the kidney in its proper place by a belt, and the constant risk of hydronephrosis and recurring pain if the crisis were kept under control.

Treatment of Delirium Tremens and Alcoholic Toxemia.

Crothers (Medical Record, December 14, 1901) discusses the treatment of delirium tremens and alcoholic toxemia. If the delirium comes on abruptly, the exciting causes are acute and point to the formation of toxins. If the delirium has been preceded by mental changes, and transcient alterations of thought and conduct occur, gradually becoming more constant and fixed, there are indications of organic lesions of the brain. It is important to ascertain whether the delirium follows from a long period of continuous drinking, or whether the drinking period preceded by some physical or mental disturbance arising from organic disease, traumatism, or mental strain. Whether it followed acute disease, severe exhaustion, or whether there was mental instability as the result of hereditary influence, preceding this state. Alcohol in these conditions may be both an exciting and predisposing cause. Should the delirium follow prolonged excess in the periodic drinker, where the alcohol is abandoned before the delirium comes on, intense hallucinations of short duration, prolonged delusions concentrated upon one subject, will follow. The general pathology of these cases is a vasomotor paralysis, particularly of the blood vessels of the brain; the dilator and constrictor nerves in the walls of the arteries are affected, and a subsequent congestion of the veins is the result. Alcohol also acts directly on the composition of the blood, increasing the number of white blood cells, but diminishing their uniformity and movement, and form. There is at the same time a decrease in the number of red blood cells. The removal of the alcohol is the first step in the treatment. The cessation of the delirium must not be expected to follow the removal of the spirits. Slowly reducing the amount of alcohol, giving narcotics, forcing the feeding with an idea of overcoming the supposed exhaustion, is extremely dangerous treatment. The elimination of the toxins is also indicated. Small doses of calomel with the salines should be given until free cathartics is induced. Dr. Crothers recommends a combination of magnesium sulphate and potassium butartrate, two parts of the latter to one of the former, given in small doses according to the conditions present. Next in importance, he believes, are hot-water and hot-air baths, hot packs followed by vigorous rubbing, are useful means in promoting the elimination through the skin. Frequent sponging with hot salt water is another effective measure. Dr. Crothers distinctly forbids the use of narcotics to produce sleep. For the craving for alcohol that follows the withdrawal in some cases, strong solutions of quassia or cinchona, given every hour, will soon break up this impulse and produce an intense disgust for spirits. He advises against the

prevailing practice of allowing alcohol to be given, and also both solid and liquid foods very freely. Restraint depends largely on the patient, and in certain cases should be associated with as much liberty as possible. The condition of the heart should be carefully watched. Dr. Crothers found that ice on the nape of the neck is one of the most powerful excitants that can be used. When the delirium has subsided, different conditions of prostration follow for which he recommends nux vomica or strychnine. In the convalescent stages, both static electricity and electric light bath are the most valuable agents that can be used. The evils to be avoided in all these cases are over-drugging and over-feeding.

Tonsillar and Peritonsillar Abscess.

Moure [Journal of Laryngology, December, 1901]. That abscess occurs in the parenchyma of the tonsils itself is now generally admitted. The tonsil is red and bulging, but the pillars, uvula, etc., are not affected—*i. e.*, when the case is seen early.

Peritonsillar abscess may be divided into three main groups. Most common is the classical or antero-superior group, 26 out of 46 cases. Next is the posterior group, 12 out of 46 cases; least common is the external group. The last group is by far the most serious. Abscesses of this class give rise early to swelling of the neck and of the glands of the neck, to fixation of the neck and of the jaw. Sometimes, having perforated the limiting aponeurosis, they spread into the tissues of the neck, giving rise to so-called lateral pharyngeal abscess. They may produce fatal hemorrhage.

All peritonsillar abscesses ought to be opened early—within three or four days of their onset. At that time it is foolish to explore for pus with a knife, because (1) considerable, or even dangerous, hemorrhage may be produced, and (2) the wound closes long before the abscess cavity has had time to heal up. It is much safer to use a cutting galvano-caustic point, which is aseptic, almost painless, and produces a wound that will remain open from eight to ten days. Tonsillar, antero-superior, and posterior abscesses are generally pretty easily opened but to open an external abscess is often both difficult and dangerous. In these the galvanic knife is plunged through the whole thickness of the tonsil towards its upper third, then is drawn from behind forward, and from within outwards to the bottom of the tonsillar fossa (2½ to 3 centimetres). If this has not opened the abscess, the pus may be sought for with a cannula. Even if the pus cannot be found, it is most likely that it will find its way to the incision within twenty-four hours. Hemorrhage may also occur after ten or twelve hours.

Sometimes, when called too late to such a case, the surgeon cannot open it through the mouth; he must then open the abscess from without, remembering that the abscess is situated much deeper than in an ordinary suppuration of the glands of the neck. The operation must, therefore, be carried out slowly and carefully under general anæsthesia.

When the abscess has healed, the tonsil and tonsillar fossa must be carefully examined and attended to, to prevent recurrence.

X-Rays in Cancer.

At a recent meeting of the South-West London Medical Society, Lyster showed two cases of cancer which had been treated by exposure to the X-rays, (The Hospital, Dec. 14, 1901). The first was a case of epithelioma of the lower lip in a man aged 65. After five applications the ulcer appeared congested; there was a thin serous discharge, and a healthy granulating surface began to make its appearance. After an interval of about a week the treatment was resumed. Less congestion resulted this time, and the ulcer markedly diminished. After two more series of applications, that is five weeks from the commencement of the treatment, the ulcer had practically healed, although some slight thickening still remained towards the middle line. The second case was a lady, about 43 years of age, who had undergone an operation for the removal of a cancer of the breast in December, 1900. In August of this year she had appeared again with a recurrence in the site of the old operation, which had been observed about a month before, that is, about seven months after the operation. The clavicular flap was the seat of tubercle of a florid red color, and the lower flap near the scar was dotted with like tubercles, while the upper flap near its axillary end was the seat of a raised tumor the size of a crown piece, the surface of which was breaking down, and there were other growths. There was much pain. After two weeks of treatment all pain ceased, and after the treatment had been carried on for three months, many of the active tubercles had entirely disappeared, and all were lessening, the other tumors were diminishing in prominence, and the skin which had been quite fixed was now movable. Of course, it does not do to speak hastily of cure, but at least it may be said that the acute form of the disease which existed at the commencement of the treat-

ment had been entirely checked and exchanged for an atrophying condition. Another case of recurrent cancer now in hospital was also mentioned as undergoing the same treatment, in which similar changes appeared to be taking place.

The Neurotic Indications of Pre-Senility.

A. M. Hamilton, (New York Medical Record, Dec. 28, 1901) believes from a study of a large number of cases of pre-senility, that there are many symptoms, especially of disturbance of the nervous system, which are not taken into account as often as they should be, and which invariably indicate commencing disturbances due to vascular degeneration. The pulse has a certain instability in subjects of this kind which can be determined only with difficulty, unless the subject is under daily observation. Under slight emotional stimulation, such subjects become flushed and irascible, or lose the patience and ability to throw off care which may have been characteristic of former years. Hypochondriasis at times accompanies a limitation of mental power, and easily produced brain fag. There is also an indisposition to make intellectual exertion, and a tendency to avoid anything that may be regarded as complex reasoning. Many men of 30 or 40 years of age, who have previously enjoyed good health, are apt to suffer from headache of a peculiar kind, undoubtedly connected with sudden change in the diameter of the cerebral vessels. Dysesthesia and paresthesia often occur, and abnormal exhaustion is complained of after no apparently sufficient effort. Vertigo is complained of, and is present when the individual closes his eyes or suddenly changes his position. Presenile insomnia is usually that dependent upon an irritable brain. The patient awakens after a short period of sleep or at a very early hour of the morning. In the treatment of the condition, all bad habits should be cut off. In persons accustomed to alcohol, absolute abstinence is at times as bad as excessive indulgence; the taking of alcohol must be regular, after eating, and always well diluted. Tobacco should b avoided. A decidedly beneficial result is apt to follow the judicious use of a hot saline bath, but each case needing different care otherwise.

The Ophthalmoscopic Diagnosis in Bright's Disease.

Reynolds (Louisville Journal of Med. and Surgery). Fatty deposits in the retina, presenting a series of radiary striations around the macula, with more or less accompanying deposit of a similar nature in other parts of the retina, and sometimes with disseminate hemorrhagic effusions, with reduced and tortuous arteries, are never observed without coexisting renal disease. However, these conditions do not appear until the renal disease is well advanced. Unfortunately, structural changes in the kidney may exist in the gravest form without creating such symptoms as to lead the subject to seek medical advice. Fatty deposit in the retina not assuming the form of radiary striations, which give to the macula a stellate appearance, are common in atheroma, pernicious anemia, and embolism of the arteria centralis. The hemorrhagic effusions, with narrowed tortuous arteries, and disseminate fatty deposit, may result from autointoxication, especially of intestinal ptomaines.

The ophthalmoscopic diagnosis, therefore, of Bright's disease, while sometimes of great importance, requries expert judgment, and can never be made until the renal disease has already reached a dangerous stage of advancement.

Removal of the Female Urinary Bladder for Malignant Disease.

Matthew D. Mann (American Medicine) says that primary cancer of the bladder is rare. Carcinoma, epithelioma, and sarcoma may occur in the bladder, assuming various forms; some round, hard and smooth, others ulcers and raised edges, but there is a great tendency towards villous growths. Malignant growths in this region often have a surface covering of villous processes. The growth is usually located between the summit and the mouths of the ureters, oftenest on the posterior wall. In 50 per cent. of cases the ureterial orifice is invaded. The diagnosis is made from the symptoms and examination.

In the first stage the symptoms are slight, later haematuria occurs, increasing steadily. Cystitis follows and renal complications rapidly ensue rendering the prognosis of operation at this stage very doubtful. The urine at first is negative, then blood appears, and later on pus. Dr. Gaylord has found in the urine the bodies described by him as the protozoa of cancer.

Where the tumor is circumscribed and firm bimanual examination is of value, but in villous or multiple forms it is useless. The cystoscope and palpatation of the inside of the bladder with the finger will determine with exactness the consistency, size and location of the growth and its relation to other organs. For this the urethra must be properly dilated. The treatment must be either removal by the knife or scissors, or by the curette and

cautery, or resection of the bladder. The interior of the bladder may be reached through the urethra, by cutting through the vaginal septum, and by cystotomy by the suprapubic route. The latter, following the method of Antal, has given satisfactory results. Certain cases; however, demand a more radical procedure, and extirpation of the bladder is needful. The operation has been performed but a few times, while there have been fifty-five cases of resection, but the present outlook is that extirpation in some cases is no more serious than resection, is often easier, and the results likely to be good, if not better. The first operation on a woman was performed by Pawlik, of Prague, in 1889. Only three operations have been done in America and England.

Placenta Prævia and Cæsarean Section.

Zinke (American Gyn. and Obstet. Journal,) says that the percentage of this complication in labour is about 1.5. The maternal mortality is 25 per cent., the fœtal 65.21 per cent. But the average mortality of modern cæsarean section, collected from the cases and estimates of sixteen European and American authors, is 4.14 per cent. for the mother and 13 per cent. for the fœtus. The maternal mortality in Porro's operation is 37.89 per cent., the fœtal 22.22 per cent. Thus the fœtul is in less danger than in placenta prævia treated by purely obstretical means; but the mother in a large number of these cases underwent Porro's operation for rupture of the uterus, cancer of the cervix, or other exhausting disease such as mollities, and were in a large majority of cases exhausted by lingering labour and unsuccessful attempts to turn and deliver by forceps. Eight cæsarean and Porro operations for placenta prævia recorded since 1891 are tabulated by Zinke. In 5 both mother and child were saved. In 1 the child was saved, but the mother, very weak and exhausted before the operation, died in eleven hours. There remain 2 cases in which are chronologically the first and second, where mother and child were lost. But the conditions were exceedingly unfavorable in both cases, and in the second the fœtus had been dead for two days. He admits that there are cases of partial placenta prævia that may be successfully treated in the old way. But he firmly believes that the cæsarean and Porro operations are perfectly legitimate, and elective procedures in all cases of placenta prævia, central and complete, and especially so when the patient is a primi para, when the os is closed and the cervix unabridged, when hæmorrhage is profuse and cannot be controlled by tampons and separation of the placenta around the internal os is difficult or impossible.

Radical Cure of Inguinal Hernia in Children.

Stiles (British Medical Journal, No. 2123) has reports of 100 operations. He does not believe in the use of the truss. In about 40 per cent. of the cases a truss had never been worn.

In regard to the proper period for operation, he lays down no general rules. If a baby a few months old is unable to wear the truss, which probably might possibly cure it at that tender age, he would not hesitate to interfere surgically. Of his 100 cases, 14 were subjected to operation during the first six months of life.

Nearly all the patients (95 per cent.) were males, and the hernia was rightsided in about three fourths of the cases.

Not more than one-fifth of the 100 cases were literally congenital. Nearly one-half of all cases supervened before the fourth month.

The operation recommended is that which goes by the name of Mitchell Banks, which is preferable to Bassini's for children. In In 86 of the 100 cases the hernia was easily reducible, and would stay in place as long as the patients were kept quiet in bed. Of 7 cases which were plainly irreducible and possibly strangulated, it is curious to relate that 4 underwent spontaneous reduction after a period of rest, although the taxis had failed beforehand. All of the 7 cases recovered.

In 7 of the 100 cases the hernia was cecal, and in 4 of these the appendix was removed during the operation, by reason of suspicion of appendicitis or of undue length of the organ. In 3 cases the sac of the hernia was tuberculous.

The series of operations is of too recent date for statistics concerning recurrence, but there are already two instances of the latter due respectively to incision of the inguinal ring and defective development of the abdominal muscles.

The mortality of the 100 operations was 3 per cent. In 1 taxis was responsible for contusion of the gut and associated hemorrhage, so that the child succumbed to operative shock. A second death was probably due to the chloroform narcosis. As for the third fatality, no cause could be adduced, and in the absence of an autopsy, death was regarded as due possibly to influenza.

Removal of Foreign Bodies from the Air Passages.

Willard (Journal of the American Medical Association,) says that coughing should be encouraged and forcible inspiration restained. Inversion in the prone position as a domestic practice is advisable. Laryngoscopy is helpful if the body is lodged at the vocal cords. It may be extracted by forceps or by laryngotomy. If time permits, the x-ray may be brought into serviceable use for diagnosis. Careful diagnostic investigation is important to determine the actual presence of an impacted body, and its location.

Tracheotomy under local anesthesia should be the rule if the object is lodged at the bifurcation or in the bronchi. Tracheoscopy, suction, and forceps manipulation must be cautiously employed. Prolonged instrumentation adds greatly to the danger of pneumonia. If extraction is not secured through the tracheotomy wound, the chest should not be invaded unless an artificial respiratory apparatus like the Fell-O'Dwyer is at hand, and oxygen available. With the assistance of these appliances, however, the bronchus may be reached, anteriorly or posteriorly, since by their use rhythmical movements can be maintained. Resultant abscess of the lung should be treated by incision and drainage.

Strabismus and Its Treatment.

A. E. Davis (Journal of the American Medical Association,) draws the following conclusions in regard to this affection and its treatment:

1. That it is desirable that we have a uniform or standard set of tests for the accurate measurements of strabismus.

2. A better understanding of the physiologic action of the ocular muscles and of physiology in general than at present obtains should be had by those treating and operating on strabismus cases.

3. The amblyopia present in most cases of convergent strabismus is functional and acquired, and not congenital, except in rare cases.

4. The non-operative treatment of strabismus—atropine, the exclusion pad, and, in patients old enough, glasses, the stereoscope, and bar-reading—should be begun as soon as the squinting is observed; for it is in the early cases that this form of treatment is capable of doing so much good. By means of it, if the case is taken in time, false fixation and suppression of the image in the squinting eye are prevented, fusion of the images encouraged, and form-perception—that is, true binocular single vision—often maintained. Even where one or more of these functions have been lost persistent effort in the non-operative method of treatment frequently restores them.

5. About thirty per cent. of all cases of strabismus may be cured by non-operative treatment alone.

6. Just as soon as the non-operative method of treatment ceases to improve the condition of the squint, it is time to operate. Delay in operating after this is not only useless but harmful, because the habit of suppressing the image in the squinting eye becomes fixed and the amblyopia worse.

7. After the eyes have been operated on, the use of the steroscope, bar-reading, the pad, glasses, etc., are of the utmost use in completing the work.

8. Panas's method of operating for strabismus by stretching the muscles before cutting them is to be recommended as safe in execution, quick in results, and efficient. It should never be performed while the patient's eyes are under the influence of a mydriatic.

Two cases of Intussusception Treated by Operation; Recovery.

Allengham (The Lancet. No. 4069.) These cases were operated upon promptly and without previous inflation or injection. In each instance the operator improved his opportunity for removal of the appendix.

In the first case laparotomy was performed upon the sudden supervision of acute abdominal pain, vomiting and diarrhea with blood in the stools, a tumor having been made out by palpation. An ileocecal intussusception nearly a foot long was easily reduced, and the appendix removed. Recovery was uninterrupted.

The second child, who had been seized with collapse, subnormal temperature, vomiting and rapid pulse was operated upon soon after its admission into the hospital, a tumor being recognizable within the abdominal cavity. The whole of the large intestine was found involved in an ileocecal intussusception. Reduction proved difficult but was finally accomplished. As in the first case the appendix was removed and recovery was uninterrupted.

Neither of these cases could have derived any benefit from inflation.

Treatment of Retrodeviation of the Womb.

M. Rosenwasser, (Cleveland Medical Journal) says that a retroverted womb uncomplicated by disease should be replaced and supported by a pessary. Retroversion complicated by diseased womb or impaired pelvic floor, the womb being movable, requires preliminary plastic oper-

ation to restore the normal condition before using a mechanical support. Suspension operations should not be done simultaneously with the plastic in face of the probability that a pessary can sustain the womb in position. Retroversion complicated by aggravated prolapsus requires simultaneous plastic and suspension operations to effect a cure. The treatment of retroversion with fixed womb is that for pelvic inflammation. Whenever the latter requires laparotomy or colpotomy, the retroversion becomes subject to such surgical treatment as may appear best suited to the particular case. Retroversion, simple or complicated, in which mechanical support and plastic operation have failed to cure or to relieve, and in which the symptoms demand relief, constitutes a proper indication for a suspension operation.

The Ophthalmoscope in Nephritis.

Edward Jackson, M. D. (New York Medical Journal) says:

In cases of renal diseases the ophthalmoscope examination follows closely in importance to the clincal and microscopical examinations of the urine. Noticeable changes are found in 50 per cent. of such cases; and distinct albuminuric retinitis occurs in not less than 10 per cent. In these latter cases the ophthalmoscopic appearances are easily recognized. are as pathognomonic of the general disease as any set of symptoms known in medicine, and have the most definite prognostic significance. Of the men showing albuminuric retinitis in Haab's Clinic, all died within two years. Belt, in 419 collected cases, found that 72 per cent. were dead at the end of the first year, aud 90 per cent. at the end of the second year. A complication of such frequency and such significance is worth looking for, and it should be looked for repeatedly, for some of its most characteristic appearances are transient.

To look for it thoroughly requires the use of a mydriatic. The patient usuallly presents a small senile pupil. The most characteristic changes are apt to be in or near the macula, a region hard to examine thoroughly without the use of a mydriatic, even in young eyes. If the patient is in bed, the difficulty is still increased, and also the need for the mydriatic. But these patients are suffering a progressive loss of vision If you put atropine in the eye, it takes two weeks to get over it. The atropine impairs the sight, and by two weeks the progress of the disease will prevent the recovery of as good vision as was previously enjoyed. The patient, then, will naturally blame the atropine for a permanent lass of vision. A brief mydriatic must be employed. A solution of cocaine, 4 per cent., or euphthalmine. 5 per cent., or homatropine, one-fifth of one per cent., should be distilled forty or fifty minutes before the examination is to be commenced.

What to look for.—The most constant ophthalmoscopic symptoms is alteration of the retinal veins. These are dilated and tortuous, especially some of the small veins which arise about the macula. Other veins may be hidden in a swollent hazy retina, so that the dilated veins may look unlike a vessel, but like a hæmorrhage. Next, hæmorrhage may be found anywhere in the retina; it may even extend into the vitreous. The dark red spots that indicate it may be large or small, many or few, or, at times, even quite absent.

Swelling and opacity of the retina are usually confined to isolated patches, or to the region surrounding the optic nerve. The color of the patch may vary from a dirty-red to snow-white, or a gray-blue. The swelling is to be measured by the refraction of its summit. Sometimes it looks like a small detachment of the retina. But actual detachment may also occur. White spots arise from fatty degeneration. These are regarded as most characteristic when arranged in rows, radiating from the center of the macula. Large spots are confined to this part of the fundus or the neighborhood of the optic disk, but small ones may be scattered in all parts of the eye-ground. White streaks are occasionally seen along the arteries, or may wholly replace them The optic nerve is often reddened and opaque. It may even be swollen until it exactly resembles the choked disk of the brain disease.

Progressive Muscular Dystrophies, With a Report of a Post-Mortem Examination.

Sachs and Brooks (Journal of Norvous and Mental Diseases, Vol. XXVIII, No. 7.) state that it cannot be claimed that there is any sufficient distinction between the amyotrophies and the dystrophies In former years much stress had been laid on the muscular structure. Hypertrophied fibres were found in abundance in dystrophies, whereas in the amyotrophies these fibers were not found. But later it had been shown that the hpyertrophied fibers were found in other diseases than dystrophies. It was also a question whether the gray matter of the cord was affected in the primary dystrophies. The case reported by Sachs and Brooks was one of progressive muscular dystrophy of fifteen years' duration.

The patient had been admitted to the Montefiore Home eleven years ago at the

age of twelve. Early in life the parents had noticed peculiar movements of head and eyes. At the age of twelve years, after an attack of typhoid fever, the calves were observed to be decidedly hypertrophied. There was a marked atrophy of all the muscles of the shoulder, girdle, arm and forearm. The deep spinal muscles were intensely atrophied, and also the high muscles. The case became an example of progressive muscular disease of the pseudo-hypertrophic type. The lad's intelligence was fair. The autopsy showed all the organs normal, with the exception of an acute pneumonia and slight myocardial changes. There were no gross lesions of the brain or spinal cord. No lesions of the smooth voluntary muscular tissue could be found anywhere in the body. The psoas muscles showed extensive fibrosis. All the muscles of the back showed extensive fibroid replacement, and in places there was a replacement by yellow fat. The trapezii were very extensively invaded. The most marked changes were in the muscles of the calves, where normal muscular tissue was lost. On microscopical examination the muscles showed extensive replacement, with areolar tissue of the adult type. In the calf only occasional remnants of voluntary muscles were found Most of the fibers of the psoas muscles were either larger or smaller than normal. The coarse striae could usually be made out. The changes in the other voluntary muscles were of the same character, though varying in extent. In the occipital muscles the connective tissue hyperplasia was less, but nuclear proliferation was prominent. Examination of the various smooth muscles failed to show degeneration or hyperplasia of its connective tissue. The cardiac muscle was in very natural condition—no atrophy, no abnormal pigmentation or abnormal nuclear activity. Numerous peripheral nerves were examined, but no appreciable degeneration was discovered. Only a few spinal ganglia had been properly prepared for examination, and although slight shrinkage of ganglia cells was found, this may have been due to the fixing agents employed. Apparently the connective tissue of the ganglia had been increased; in fact, the neurolgia of the entire cord was found to be increased. Nothing in the nature of a systemic degeneration of the nerve fibers was found at any level. In the cervical region the ganglion cells of the anterior horn showed a slight nuclear eccentricity. The most common lesion was a finely-granular subdivision of the plaques, usually not involving the systoplasm. A few lumbar cells showed an unusual amount of brown pigment collected about the nucleus.

Syphilitic Arterial Disease.

Gowers (British Medical Journal, Nov. 30, 1901) reports the case of a woman aged 25 years, who sufferered for 3 months from headache, which was severe from the first, and which was referred to the front and back of the head. After it had existed for a month, vomiting was added and both symptoms continued. Toward the end of another month the patient was noticed to become strange in manner, and the mental disturbances increased, so that she is said to have been "always talking nonsense." Soon afterwards, 3 weeks before admission, to the hospital some loss of power of the right side was noticed, and she also had a fit of some kind. The family physician stated that the patient had probably had syphilis. She was an ill-nourished, anemic girl, very weak, and in a condition of stupor, foot clonus was present on the right side and the optic disc were normal. Inunctions of mercurial ointment were ordered and following their use there was distinct improvement; although the benefit was not greater than that we often see from the first influence of the rest and suitable food a patient recieves in the ward of a hospital, and the improvement soon ceased. At the end of a week 15 grs. of potassium iodide, 3 times a day, was added to the mercury; but, in a few days more, the increase in weakness was so distinct that the inunctions were stopped, the iodide being continued alone. At the end of another fortnight the patient had several slight convulsive attacks and almost complete paralysis of the left side came on suddenly. The stupor deepened to coma, the temperature rose to 104 deg., and 3 days later the patient died. The symptoms suggested a rapid cerebral growth. The necropsy showed that, although the disease was syphilitic, there was no growth. There was extensive syphilitic disease of the arteries, which was most intense at the commencement of each middle cerebral artery. In this situation the thickening of the wall had encroached on the cavity of the artery to the point of obliteration; this was especially great on the left side. The right middle cerebral artery contained a thrombus which was the cause of the final hemiplegia. There was a partial thrombus in the left middle cerebral artery, the occurrence of which must have caused the onset of the right hemiplegia. An abnormal artery from the posterior cerebral carried enough blood to the distal side of the clot to prevent the paralysis being complete. A clot which was sit-

uated in the anterior cerebral artery may be assumed to have caused the onset of the mental symptoms, although its effect was lessened by the supply of blood brought by a second anterior communicating artery. The progressive increase in the symptoms, the increasing palsy, the deepening speechlessness and stupor were undoubtedly due to the alteration in the structure of the brain produced by the endarteritis.

Suggestions for Lessening the Frequency of Relapses After Treatment of Morphinism.

A. J. Pressey (Journal of the American Medical Association,) believes in gradual withdrawal of the drug. He suggests asolution of sixteen grains to the ounce and give thirty minims, which would represent one grain, and give four times during the twenty-four hours. If he is uncomfortable and shows any of the abstinence symptoms, increase the quantity a few minims; if he is comfortable after twenty-four or forty-eight hours, withdraw one minim at each of the four doses. Continue the reduction each day until he is taking as small a dose as possible without feeling too much discomfort for more than an hour or so before the time for giving morphin again. When this point of discomfort has been reached rest for two or three days, or until the patient is comparatively easy on the amount he has been receiving; then withdraw another minim and proceed in this manner until the amount has been reduced to six or eight minims, when it is better to make a solution of eight grains to the ounce and give twice the quantity, as a minim of the strong solution will represent a larger amount of morphin than we should be able to withdraw at one time without producing much discomfort. Again, when this solution has been reduced so the patient is taking only five or six minims, make another solution of one-half the strength and give twice the amount and so on until he is not taking more than 1-20 grain at a time, when it may be attempted to discontinue it entirely. In some cases it will have to be reduced to a much smaller quantity before it can be entirely withdrawn. Never discontinue the morphin while the dose is large enough so that the loss of it can be felt by the patient. During the entire withdrawal period and for a longer or shorter time afterward the patient should be built up with nerve tonics, heart tonics, and general tonics, a liberal diet, and as much sleep as possible.

Treatment of Ringworm of the Scalp

Johns (Massachusetts Medical Journal) says in ringworm of the scalp, cleanliness and frictions with carbolized oil are personally almost exclusively relied on. The strength of the application used is 1 part of carbolic acid to 16 parts of linseed or olive oil. This should be applied in the following manner: After washing the scalp with warm water and soap, and drying, a little of the oil is poured on a piece of flannel, and rubbed into the diseased patch with smart friction. The friction drags out of their follicles the loosened hairs, and has an additional advantage in opening the mouths of the hair-follicles and allowing the remedy to penetrate deeper, and come in closer contact with the parasite. When the diseased patch has thus been well saturated with the carbolized oil, the remainder of the scalp should also be rubbed with it to prevent extension of the infection.

Sulphurous acid has also been used with great satisfaction in the treatment of ringworm of the scalp. It is used either in full strength, or diluted with a half or an equal part of water.

No other measures have been found necessary in the treatment of simple ringworm of the scalp.

Treatment of Diabetes Mellitus.

Williamson (Med.Chorn.) states that for therapeutical purposes three forms of the disease may be recognized: 1. The mildest form; 2 the more severe form; 3. the most severe form, with perchlorid of iron reaction in the urine. 1. In the mildest form, the sugar excretion ceases when a rigid diet of nitrogenous and fatty food is given. The urine gives no reaction with perchlorid of iron. Usually the sugar excretion is small and the symptoms slight. These cases are distinguished from temporary glycosuria by persistence of the sugar excretion. Some writers would describe the milder cases of this form as chronic or persistent glycosuria; whilst by those who regard all cases of of persistent sugar excretion as diabetes mellitus, they would be described by the term last mentioned. 2. In the more sever form, the sugar excretion does not cease when a rigid diet is given; but the urine gives no reaction with perchlorid of iron. This is the form most frequently met with in hospital practice, and the cases vary considerably as regards the sugar excretion and diuresis. 3. In the most severe form, a rigid diet also fails to arrest the sugar excretion; and in addition, the urine gives a dark, brownish-red coloration with perchlorid of iron. In this form there is great danger of coma developing.

Primary Carcinoma of the Duodenum.

Dr. Fenwick (Edinburg Medical Journal): Primary carcinoma of the duodenum is met with once in about 1500 to 2000 necropsies and thus presents a ratio to gastric carcinoma of 1 to 20. The great majority of duodenal carcinomata belong to the cylinder cell variety, but the spherordal cell growths are not uncommon, and colloid carcinoma is relatively frequent. Like simple ulcer in the same situation, a malignant growth is more frequent in men than in women, and the average age at the time of death is 53 years. The symptoms of duodenal carcinoma vary according to the situation of the growth. It is therefore convenient to consider the clinical aspect of the disease, according as it is situated above, around, or below the biliary papilla. When the first portion of the bowel is affected, the patient presents all the indications of pyloric stenosis, and a differential diagnosis is extremely difficult. Disease of the second part is apt to involve the orifice of the common bile duct, that its location may often be determined during life by the coexistence of jaundice and enlargement of the liver, while a stricture of the duodenum below the biliary papilla is usually attended by bilious vomiting and the presence of pancreatic juice in the ejecta. Carcinoma above the biliary papilla may either form a ring around the bowel or produce a deep ulcer. The initial symptoms are flatulence after meals, acidity, loss of apetite, general debility and beginning emaciation. This is followed in a month by pyrosis and emesis, which is always acid with masses of undigested food and excess of lactic acid, severe pain in the epigestrium, with blood and bile in the stools. A tumor may be detected upon palpation. The subsequent course of the disease is similar to that of pyloric cancer. The second type gives jaundice as its first indication. The epigastrium is distended, the liver enlarged, the gall bladder distended, the stomach enlarged, but a tumor can seldom be detected. Carcinoma below the papilla begins in the same manner, but the vomit contains bile and pancreatic juice, is of green color and resembles chopped spinach. Attacks of intestinal obstruction supervene. The urine is greatly reduced in amount, and may be entirely suppressed, while that which is voided is alkaline in reaction and opaque from an excess of earthy phosphates. Symptoms of auto-intoxication are often present at this stage of the complaint, the stomach is enlarged and a succession splash may be obtained as far outward as the right mammary line, or even in the lumbar region, due to the dilation of the duodenum above the site of stricture. If only a ring is formed, no tumor can be detected, but when the pancreas is infiltrated, a hard indefinite mass may be found to the right of the umbilicus. Regardless of site the average duration of the complaint was about 7 months, the extreme limits being 3 and 13 months, death resulting from the hemorrhage, peritonitis or tetany. Disease of the first part of the duodenum has to be distinguished from benign and malignant strictures of the pylorus, and from the effects of pressure exerted upon the bowel by an external tumor of the second part of the duodenum; from carcinoma of the pancreas or of the ampulla of Vater, from gall stones, and from a simple chronic ulcer in the same situation; and of the third part of the duodenum from pressure on the part by a tumor of any neighboring viscus by undue tension of the transverse mesocolon, by enlargement of the superior mesenteric vessels, from impaction of a gall stone and from cicatrization of a simple ulcer. The medical treatment does not differ from that of carcinoma of the pylorus. Excision of the growth is rarely feasible, but gastro-enterostomy often prolongs life for several months.

Rachitis.

Arthur B. Crandell (Boston Medical and Surgical Journal) gives the premonitory signs of rachitis as head-sweating, irritability, restlessness at night, prolonged gastro-enteric disturbances, and delayed dentition. These symptoms should excite suspicion. The detection of the rosary and the enlarged epiphyses renders the diagnosis certain. The clinical picture is completed by the appearance of the prominent cranial bosses, the delayed closure of the anterior fontanelle, the various thoracic deformaties, the pot-belly, deficient muscular action, and, as the disease progresses in contour of the extremities. The prognosis of uncomplicated rachitis is good; the disease untreated tends to a spontaneous recovery after a duration of several months. Pulmonary, gastro-enteric, and nervous complications are frequent and render the prognosis grave. Any acute disease in a rachitic infant assumes a severe type and is increased in danger. Prophylaxis comprehends painstaking and accurate feeding, careful hygiene, and supervision of methods of living. Since rachitis is due largely to the deficiency of fats and proteid, in the food, a proper percentage of each must be supplied and improper elements in the diet must be eliminated, and the infant kept under observation, that changes in the food may be made when necessary. Proper amouuts of light and

air must be secured. City living should be exchanged for life in the country, or, better still, life at the seashore. If poverty prevents this, the child may be taken on daily trips to spots where light and air are more abundant. Bathing and massage favor bodily nutrition. The drug treatment is of minor importance. Milk and cream afford fat in the best form, but it is sometimes expedient to administer it as codliver oil in assimilable doses. The anemia is to be treated by the use of iron. Many deformities may be prevented if their possible occurrence is borne in mind. Creeping, walking, and sitting up may cause bending of the softened bones, and should be allowed gradually until the bones begin to harden. Manipulation will do much to reduce the lesser deformities of the extremities while the bones are flexible. Deformities that are severe and remain in spite of all measures undertaken require orthopedic treatment. The thoracic changes can be helped by various exercises, and the distorted bones of the extremities may be corrected by osteotomy at the proper time. The use of apparatus in the case of bowlegs and knockknees results commonly in annoying failure and is an unnecessary infliction on the patient. Osteotomy when the bones have regained their normal hardness, but not before, is much to be preferred.

Suprapubic Cystotomy and Retrograde Catheterization as a Guide in Perineal Section for Obliterative Urethritis.

Crutcher (Inter. Jour. of Surg.) reports the case of a man 60 years of age with a urethral stricture of many years' standing, for the relief of which he had been in the habit of passing a soft catheter occasionally. One night, upon attempting to introduce the instrument for the purpose of emptying the bladder, it failed to enter, the attempt being followed by cosiderable urethral hemorrhage. When first seen by the writer, there was a slow urethral hemorrhage associated with a highly distended bladder and a great deal of pain in the lower abdomen. The bladder was exposed, anchored to the skin, and slowly aspirated. Five days after making the suprapubic wound, under chloroform anesthesia, the perineum was opened. The urethra was found to terminate in a blind pocket, amidst a mass of cicatricial tissue; the vesical end of the urethra could not be located by any means. A small grooved male sound was passed from above and made to point in the perineum, the urethra being opened upon the groove in the perineum. Perineal drainage of the bladder was instituted. The patient made a complete recovery. The author believes that after completion of the perineal work, it is the best practice to completely close the bladder wound. Compared with Cock's operation the certainty and comparative ease of the suprapubic method should commend this method to conservative operators as the operation of choice.

The Surgical Treatment of Biliary Calculi with Special Reference to Hepatotomy.

W. E. B. Davis [Journal of the American Medical Association, Dec. 14, 1901] says:

In every case in which gallstones can be diagnosticated they should be removed. He refers to the great rarity at the present time of biliary fistulae after cholecystectomy, due to the fact that the gallbladder is sutured to the peritoneum and fascia instead of to the skin. When gallstones are found during pelvic operations, he suggests that they should be removed after the pelvic wound has been closed and not as recently suggested by Kelly. Cholecystectomy is indicated "in gangrene of the gallbladder, multiple or perforating ulcers, stricture of the cystic duct, phlegmonous cholecystitis, empyema with great danger to the walls of the viscus, and malignant disease." The operation is not recommended in cases of chronic cholecytitis; in such cases it is thought that drainage is better. He refers briefly to the history of the various oparations upon the gallbladder and its ducts. When a stone is present in the common duct and cannot be pressed up into the gallbladder or down into the duodenum, it should be removed through an incision into the duct which should not be closed with sutures, but allowed to drain.

Kehr is quoted as supporting drainage in these cases in preference to closing by suture. Kehr's unusual success in the treatment of these cases [six deaths in ninety-seven choledochotomies] is thought to be due to his having drained in extreme exhaustion and cholemia and when marked cholangitis was present.

Dr. Davis refers to the operation of hepatotomy which he has suggested in cases of obstruction of the ducts with enlarged liver where the gallbladder or ducts cannot be isolated or the patient's condition from exhaustion or cholemia will not permit of a protracted operation. The operation is only exceptionally called for, but the writer relates a number of cases in which he has freely insised the liver, where the ducts have been obstructed, with the most satisfactory improvement in the patient's condition, an exploration of the gallbladder and its ducts can be made.

The Quantity of Water in Foods.

It is not very generally realized how much water there is in solid food. Certain it is that no natural food is without water varying in amount from 5 to 97 per cent. of pure water itself. Milk, of course, must be taken as the type of a complete food and yet it contains, even straight from the cow, very nearly 90 per cent. of water, or, to be more accurate, from 87 to 88 per cent. That is to say, more than four-fifths of milk consist of water, and as this is the condition in which it is naturally furnished the inference is the fats, the sugars, and the proteids were intended to be taken in diluted state. Indeed, the composition of other foods would teach the same thing, although, paradoxical as it may seem, some solid foods contain more water than does milk. This is especially true of vegetables and fruits. That the turnip contains over 90 per cent. of water, the cabbage nearly the same amount, and the cucumber and the vegetable marrow about 95 per cent; while among fruits the strawberry contains nearly 90 per cent. of water, the apple 82 per cent, and grapes 80 per cent. Even the various meats used as food contains an amount of water far in excess of the amount of solid constituents. Thus three-fourths of beef and mutton consist of water. The housekeeper, says the London Lancet, perhaps scarcely realizes when consulting the butcher's price list that three-fourths of the meat are water and paid for with the rest at the rate of a shilling or more per pound. Lamb contains less water—namely, 64 per cent., pork still less, 60.9 per cent., and bacon only 22.3 per cent. It would appear that as the flesh foods increase in the amount of fat the proportion of water, as a rule, diminishes Coming to birds, the flesh of the fowls and duck contains about 70 per cent. of water, and that the pigeon 75 per cent., while the flesh of the goose contains only 38 per cent. the last being another example of the fat increasing with a corresponding diminution in the proportion of water. Fishes contain from 40 to 80 per cent. of water. The egg, one of the most powerful of nutritives, contains 65.5 per cent. of water, the white, consisting of 86 per cent. and the yolk of 50.9 per cent. The latter, of course, is the more nourishing part. As a rule foods containing a small proportion of water are not fit for human consumption until they are cooked, which commonly means reducing them to a digeitible state by adding water and boiling or baking, and so when they are actually partaken of they contain a good percentage of water. Wheat flour, for example, contains only 12 per cent. of water, while bread contains nearly 50 per cent. It would appear to be necessary, therefore, that food should be in a decidedly moist condition before it is fit for use, and thus water plays a role in food which at first sight perhaps does not seem evident. Bacteria could not live or act except under a wet environment and chemical change under absolutely dry conditions is impossible; therefore, without moisture life would cease and the great vital process would come to an end.

Treatment of Extra-Uterine Pregnancy.

Francis D. Donoghue (Annals of Gynecology & Ped., Nov., 1901): The term extra-uterine pregnancy is for practical purposes, applied to the arrest and development of the fecundated ovum at any point between the ovary and the uterine cavity. The term ectopic does not seem satisfactory as ectopic, when carefully analyzed, means simply a pregnancy that is out of place.

Kelly classifies the causes as follows:

1. Obstacles within the lumen of the tube by which its calibre is diminished.

2. Diseases of the tubal walls and peculiarities in its anatomy or form.

3. Factors acting externally to the tube by which its lumen is encroached upon or obliterated.

The particular causes may be classified as: a, atresia of one tube with external migration of the fertilized ovum or the spermatozoa from the opposite side; b, persistence of a fetal type of uterine tube [Freund]; c, diverticula from a lumen of the tube [Landau & Williams]; d, torsion of the tube; e, catarrhal or purulent salphyngitis [Tait]; f, fibroid of uterus [Leopold]; g, peritoneal bands or adhesion compressing the tube; h, cervico-abdominal fistula after hysterectomy; i, retroflexion of the uterus.

Bi-cornate uterus and precedent sterility are considered by Currier as causative.

Glitsch thinks that there is no single cause, but that there is usually predisposition, inherited or acquired, which furnishes the occasion for the longment of the ovum. By far the most common causes, says Glitsch, are inflammatory affections within the tubes or their environment, and these are most often produced by gonorrhea.

Given the ordinary sings of pregnancy, a small uterus, a tubal history of pelvic disease and pain, the diagnosis is almost complete, and requires only an examination of the decidua for confirmation. The formation of a decidua is one of the most notable changes in the uterus in ectopic gestation. It resembles the dicidua vera of normal pregnancy, and is thrown off in one

complete cast or as debris at about the time of primary tubal rupture. This event is frequently accompanied by metrorrhagia. This membrane is cast off even if the ovum remains alive. The decidua is from $\frac{1}{8}$ to $\frac{1}{4}$ of an inch thick, rough on its uterine and smooth on its inner surface, and shows no trace of decidua reflexa or of decidua serotina.

Rupture of the tube into the abdominal cavity is followed by the most alarming and urgent symptoms; and it is in this class of cases that prompt surgical treatment by opening the abdomen and controlling the bleeding tube has scored its most marvelous results. I firmly believe that we should go ahead on the cases as soon as a probable diagnosis is made and without waiting for the reaction from shock which may never come. When the diagnosis is made before rupture the operation is a simple one.

After opening the abdominal cavity and walling off its contents with gauze the uterus with enlarged tube should be brought up into the incision. The offending tube should then be opened, the fetal sac removed, the bleeding points ligated, and the tube, if it can be rendered patulous, and the uterus dropped back. The abdomen should then be closed tightly. If adhesions have been found they should be divided, and if the uterus was in retroposition, a ventral fixation or suspension is indicated. In any case of extra-uterine pregnancy the ovaries should not be removed.

Vaccination.

Crandall (American Medicine Dec. 7. 1901) sums up the lessons taught from experience in the following: "1. The first lesson cannot be better stated than in the words of the Berlin Board of Health: 'Vaccination in infancy, renewed at the end of childhood, renders an individual practically as safe from death from smallpox as if that disease had been survived in childhood, and almost as safe from attack.'2. The duration of the immunity conferred by vaccination is variable. In many individuals vaccination in infancy, and revaccination in childhood is sufficient for life protection. In a limited number, immunity is lost in five or six years. It is never possible to know with certainty to which class an individual belongs. In the face of an epidemic, therefore, vaccination of all who have not been vaccinated within five or six years, is giving what the lawyers call the benefit of reasonable doubt. Every one who has been vaccinated in infancy and childhood, should be vaccinated not less than once in adult life. 3. The immunity conferred by vaccination is in direct proportion to the thoroughness with which it is performed, and this is shown with considerable accuracy by the character and number of the resulting scars. 4. Vaccination in infancy alone is not sufficient to wholly prevent smallpox among the adult population. 5. Optional vaccination has not proved sufficient to protect the community from smallpox. Compulsory vaccinateon is a measure warranted by more than a century of experience. 6. The mild compulsion enforced in this country, by requiring vaccination or evidence of its recent performance upon admission to the public schools, should have the hearty support of parents and physicians alike."

MISCELLANEOUS.

Dyspepsia.

In cases where there is Dyspepsia, we can make but little headway until we give the patient a remedy which will assist digestion. Peptenzyme is are medy very appropriate, because it aids in the digestion of all kinds of food. Pepsin is only good when the albuminoids are to be digested, and the diastatic ferments are given when the starchy foods are not digested well. The fact is, we cannot supply our patient with a great many different remedies, so it is always best to give the patient the remedy in as compact a form as we can. I give the patient with Dyspepsia of different type Peptenzyme, in doses of ten or fifteen grains, after each food taking. I use the term "Food taking," because it is important in many cases to use the medicine after eating, whether the meal or lunch has been taken at the regular time or not. In the cases of infants and children, I give the Elix. Peptenzyme, as it is pleasant and more easily given to infants than a powder or tablet. To adults I usually give the tablet or powder. I must add also that Dyspepsia and mal-assimilation are two factors, which are bridges, which must be crossed before we can get good results. To cure Dyspepsia, some one remedy is best, provided, that one remedy acts on all kinds of food. A one-sided digestive ferment will not produce the results we desire, and so a reliable one remedy must be found. As before said, Peptenzyme has been found easy, both for infants and adults. The remedy can be given with great freedom as regards dosage, as it it entirely non-toxic.—*Medical Progress.*

Surgery of the Lungs.

From a study of two cases of pulmonary gangrene, two of pulmonary abscess, one of pulmonary cavity, one of bronchitis, and one of subdiaphragmatic abscess treated by surgical measures, Sapiejko (Revue de Chirurgie) concludes that incision of the pleura, of the lung, and even of the diaphragm, in cases of subdiaphragmatic abscess, may lead to a favorable issue if pleural adhesions exist; and these are present in the majority of cases in which suppurative process occur in the lungs. It is of the highest importance to determine the exact situation of the pleura-adhesions, through which the way toward the focus of disease is shortest and least dangerous. This may be done by introducing through a small incision in the skin a dull, hollow, fine shaped needle, connected with a glass tube bent twice on itself and filled with sterilised physiological salt solution. In the absence of adhesions, the negative pressure in the pleural cavity will cause the fluid in the tube to move toward the chest, and in their presence the fluid will recede. In the former event the formation of adhesion can be superinduced by injecting concentrated solutions of silver nitrate, formalin, potassic hydrate, etc. The lung may be incised with an ordinary bistoury, and the resulting hæmorrhage is usually controlled by packing.—*Indian Medical Record, Dec. 4, 1901.*

The Prevention of Ophthalmia Neonatorum.

In an article on the prevention of ophthalmia neonatorum, Dr. Lucien Howe, of Buffalo, (Philadelphia Medical Journal, January 18, 1902) whose name is so prominently identified with this subject, urges the enactment of the laws which will make it compulsory upon the practitioner to adopt some form of prophylaxis against this disease, which is responsible for so many cases of blindness. He cites statistics by Kostling, showing that in 17,000 births where no prophylatic treatment had been employed some trace of ophthalmia developed in over nine per cent., whereas in 24,000 children treated by the Crede method the number who developed the disease was only one-half of one per cent. The Crede method, however, has the disadvantage of always producing some pain and usually more or less conjunctivitis, while in a few instances it has given rise to corneal ulceration. According to the statistics of Piotrowski, in 1030 children treated with a strong solution of boric acid and a ten per cent. solution of protargol not a single case of ophthalmia occurred, while slight catarrhal conjunctivitis was observed in only 1.2 per cent. Aside from the numerous favorable reports on the value of protargol as a prophylactic against this affection by European authors, the drug is preferred for this purpose by many ophthalmologists in this country, including Drs. Alt, Peck, Cheney, Fox, Hotz, Zimmermann, Convorse and Todd. In commenting upon Howe's paper the Philadelphia Medical Journal remarks editorially: "If we cannot reach the fons origo of ophthalmia neonatorum, we can at least save the offspring from a life of darkness, and protect the community from a source of burden and expense. That this can to an enormous extent be accomplished by prophylactic instillation need hardly be repeated, and its negligence constitutes a sin of omission that deserves commensurate punishment. The enactment of such a law is feasable, its interpretation obvious, and its enforcement not difficult, provided the accoucheur recieves the intelligent support of an intelligently instructed community."

Fibroma Free in Abdominal Cavity.

Jacobs (Bull. de la Soc. Belge de Gyn. et d'Obstet., vol. xii., Nov. 3, 1901) describes a case where a large fibroma was removed by operation from the abdomen of a woman only twenty-one years of age. The period had been regular till eighteen, then it became irregular. There had been for two years steady increase in the size of the abdomen, without any attacks or tenderness. At length the swelling became so bulky as to interfere with the patient's comfort and duties. There was abdominal distension most marked in the upper part of the belly and in the flanks. The tumor could be defined reaching from the hypochondria to a little below the umbilicus. Its mobility was but slight. It was smooth above, irregular below, firm in consistence, and apparently fluctuated on pressure over certain points. The uterus was anteverted and freely movable; the tubes and ovaries could be detected on palpation free from the tumor. The patient was in robust health. A pedunculated fibroid or a cyst of the ovary was suspected. At the operation the tumor was found to have a smooth, shiny, white surface. A big lobe, clearly solid, was drawn through the abdominal wound, and then a fluctuating lobe could be defined lying above and fitting into the diaphragm. This lobe was tapped, and a great quantity of a yellowish-brown fluid removed. The entire tumor came out of the wound. It was connected with nothing except the great omentum, which had greatly dilated vessels, which were ligatured and divided. The uterus, ovaries, kidneys, and

liver were all carefully examined; they were neither displaced nor bore any trace of a pedicle. The tumor and the fluid it contained weighed 33 pounds. The solid part was entirely made up of fibrous tissue, and bore very few vessels. The punctured lobe was a very capacious cyst; its inner coat was covered with a white deposit, supposed to be fibrine from a clot. Jacobs considers that this tumor could not have originated save from the uterus or ovaries, although he expressly admits those organs were small and normal, and showed no trace of a pedicle. The possibility of the development of fibroma in an omental cyst might be entertained by some pathologists, but the operator implies that the omentum was normal and spread over the surface of the tumor, to which it adhered and which it nourished. Its origin seems enigmatic.—*Journal of Obstetrics and Gynecology of the British Empire.*

Protonuclein Tablets.

I have also used protonuclein tablets in cases of anaemia and in tuberculosis and have had good results. The following cases might be cited to show its good effects:

The first case was that of a young girl about 20 years old, who had been anaemic for over one year. She had a weak pulse and was thoroughly constipated. Her tongue was coated almost all the time. Her lips were pale and her skin yellow. She vomited at times and her menses were irregular. The urine was normal, and so far as I was able to tell there was no organic trouble of any kind. I placed her on protonuclein, two tablets every four hours, and in less than one week I noticed a change in the color of her skin. Her appetite grew better and she could digest any food which she ate. Under this treatment she gained in weight and at the end of six weeks was in as good health, apparently, as she ever was.

The second case in which I used protonuclein was one of undoubted pulmonary tuberculosis. This patient was 24 years old and had been complaining for one year or more. He was emaciated and I noticed a rise in temperature in the afternoon, showing a septic condition. His cough was most annoying in the morning and he would often expectorate large quantities of fetid matter. His pulse was quick and small. He had the sharp pains in the side of an accompanying pluritis. This was a typical case in which to try the effects of protonuclein. Consequently, I prescribed three tablets four times daily and noted an improvement in his condition in ten days. The cough and expectoration diminished and in three months had ceased entirely. The temprature became normal, and in four months from the time I began treatment the patient had increased 20 pounds in weight and was feeling well.

I have given these brief reports with the hope that other physicians may try this preparation in this class of cases and also report their experience. For it is in this way that we may prove the merits of any pharmaceutical product.—*Prof. C. S. Miller, M.D., in the Medical Council, Aug., 1901.*

A Hint Regarding Trained Nurses.

One of the hardest things for the nurse to learn is not to prescribe for patients. Some pride themselves on carrying out directions to the very letter, but unless the attending physician is also careful to specify *what not to do*, it is often found all sorts of liberties have been taken and things performed that were better left undone.

Instruct the nurse never to ask the patient what she or he wants in the way of food. If anything is called for that will not injure, it should be allowed, but even then only a small portion at a time; a little bit in a dainty dish will tempt the appetite, when a larger quantity would induce loathing and nausea.—*Detroit Medical Journal.*

Tuberculous Pericarditis with Large Effusion.

Rendu (Bulletins et Memoires de la Societe des Hopitaux de Paris, November 11, 1901) reports a case of tuberculous pericarditis in a man of 34 years of age. On admission to hospital he was very dyspnœic, pulse small, rapid and irregular, a typical *pulsus paradoxus*. The precordial region was bulged, and there were œdema of the anterior chest wall, precordial dullness, and tympanitic resonance over the left lung posteriorly. Rendu punctured the pericardium, withdrawing 800 c.c. of serofibrinous, slightly hemorrhagic fluid. Four weeks later the effusion again caused the same symptoms, 1,250 c.c. were withdrawn and one g. of camphorated naphthol was injected. Six weeks later he was well, considering his pulmonary condition. The size of the effusion, and the great quantity of mononuclear leucoytes in it, showed that the condition was probably tuberculous, Sphygmograms are given showing the changes in the pulse.—*Australasian Medical Gazette.*

Recent Inversion of the Uterus.

Pinard (Ann. de Gyn. et d'Obstet., October, 1901) distinguishes three forms

of inversion, according as it is immediate, recent, or chronic. The distinction is made according as the condition is recognized immediately after delivery, or only after a much longer time. He relates two cases of the intermediate or recent variety. The first occurred three days after a normal labor, during the straining of defæcation. Attemps at reduction were made unsuccessfully, after which a Champetier's bag was introduced into the vagina. The next day, under anæsthesia, the inversion was found to be irreducible. The mass was of a violet color, and showed superficial patches of necrosis. Expectant treatment was deemed inadvisable in view of the fact that the uterus had almost certainly become infected by its immersion in a basin of fæcal matter, and already showed patches of necrosis. Hysterectomy was therefore performed, with a successful result. In the second case also labor was said to be spontaneous. Hemorrhages set in, and it was not till the fourth day that inversion of the uterus was diagnosed. Three days later she was taken into hospital, and a medium-sized Champetier bag was introduced. In the evening reduction had been partially effected, but during examination the patient cried out loudly, and it could be felt that the inversion was taking place again, so a full-sized Champetier bag was intruduced, and fully distended. The next day reduction was found to be complete, and the bag was removed. During the succeeding fortnight the temperature and pulse gradually came down to normal, the treatment consisting at first of intra-uterine quinine douches and injections of saline solution, and, later on, of morphia. Pinard remarks that the difference in the treatment of the two cases was due to the fact that in the first the circulation was obstructed—it was, in fact, a case of strangulation—while in the second the circulation was still apparently free. He considers that Champetier's bags possess an advantage over all other plans in the reduction of an inversion.—*Journal of Obstetrics and Gynecology of the British Empire.*

Diffuse Peritonitis Complicating Appendicitis.

Ochsner (Medical Press, July 17, 1901) remarks that diffuse peritonitis may occur in the following classes of cases: (1) Gangrenous appendicitis; (2) perforative appendicits; (3) cases in which the cæcal end of the appendix is closed, and the distal portion so distended with septic material as to make its walls permeable to microbes; (4) in the rare cases where there are small abscesses in the walls of the appendix; (5) cases of septic thrombosis of some of the vessels. The writer's conclusions are a follows:

1. Peristaltic motion is the chief means of carrying the infection from the perforated or gangrenous appendix to the peritoneum. 2. This can be prevented by prohibiting the use of every kind of food and cathartics by the mouth, and by employing gastric lavage in every case in which there are remnants of food in the stomach, or in the intestines above the ileo-cæcal valve, as indicated by the presence of nausea and vomiting. 3. The patient can be supported by concentrated predigested food given by enemata, four ounces at a time every four hours. Cases of perforative or gangrenous appendicitis, with commencing peritonitis, can usually be carried through the acute stage by this treatment. 4. The patient should be allowed to recover from the acute attack before operation is performed, except in cases seen within thirty-six hours, or in cases of superficial circumscribed abscess. —*Treatment, London, Dec., 1901.*

Dilatation of the Cervical Uteri in Obstetrical Practice.

H. J. Garrigues, in the dilatation of the cervical uteri in obstetrical practice reviews the following methods: The drugs that are used consist of an ointment of belladonna smeared on the cervix, but, on account of the danger of infection, is very little used at the present time. A good substitute is atropine dissolved in sterilized water, injected into the tissue of the cervix in the dose of 1-40 grain; cocaine, 10 per cent. solution, painted inside and outside; chloral hydrate, xv, every twenty minutes for three or four doses; antipyrin, grains x, every half hour until three doses are given; strychnine, 1 30 grain, repeated every twenty minutes until 1-10 has been given. Quinine in 10-grain doses is also used. Ipecacuanha, grains ii, repeated every twenty or thirty minutes, is very excellent, although it is very disagreeable. The mechanical means are numerous, consisting of (1) tampons; (2) manual dilatation; (3) dilatable bags; (4) expanding metal dilators; (5) deep surgical incisions. The author favors manual dilatation, and says that a cervix toward the end of pregnancy may be so dilatable that in fifteen or twenty minutes it may be fully dilated. It is opened by pressure with the index finger and then dilated by lateral pressure exercised with the crossed thumb and fingers, using the flexor muscles.—*Indian Medical Record.*

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Acute Iodism in the Form of Parotitis.

Dr. Karl Furth, of Vienna, in the Wiener Klin. Wochenschr., No. 43, 1901, gives a brief sketch of several instances of this form of intoxication associated with other easily recognized signs of iodism.

The first instance—that of Rose in 1866 (Virchow's Archiv, Bd. XXXV.) was due to the injection of a quantity of lugol solution into an ovarian cyst. The swelling of the parotids occurred on the first day, and the case ended fatally by heart failure.

Rieder in 1886 (Munch. Med. Wochenschr., 1887) recounted a second case in a man in Ziemssen's clinic afflicted with saturnism who was treated in the ordinary way, and developed acute iodism after taking about 37 grains of potassium iodide during fourteen hours (fever, rapid pulse, frontal headache, œdema of the eyelids, etc.). Both parotids swelled enormously, and the saliva was diminished in quantity. With complete suspension of the drug and a course of baths the symptoms rapidly subsided, and the parotitis disappeared in a few days.

Villar, in La France Medicale of the same year, described a similar case under the title "Iodisme Ourlier," and referred to three such cases observed by Regnier.

The author's case was a governess of fifty-two, who, on account of myopia with chronic choroiditis, was ordered one tablespoonful daily of 5 grammes of sod. iodide in 150 grammes water, which she took from April 6 to 29 (.5 gramme NaI daily). She awoke on April 29 with severe headache, general malaise, and swelling of the right eyelids which increased in the course of a few days. The treatment was suspended, and the symptoms subsided except for the swelling of the lips, which persisted for two days.

On May 10 the same dose was resumed at mid-day, and shortly before six the same evening the patient noticed some difficulty in speech and a strange sensation in the tongue; an hour later she was very ill; severe palpitation, fever, giddiness, and depression reminded her of the previous attack, and shortly there appeared considerable swelling under the maxilla. At 10:30 p. m. (temperature 38.8 deg., pulse 130) severe headache, palpitation, and dryness of the mouth continued. There was great swelling on both sides of the jaws, and the tongue was pushed up by swelling in the floor of the mouth, the plicæ linguales being swollen to the thickness of the finger. The appearance resembled typical mumps, which was rendered improbable by the age of the patient.

The drug was again suspended, and in twenty-four hours the active symptoms had subsided, the swelling disappearing in the course of eight days. The nature of the case was still further proved by a recurrence of the symptoms with swelling of the salivary glands after another dose of the iodide on May 24.—*Treatment, London, December, 1901.*

Unusual Perineal Rupture in a Primipara.

Erwin Kehrer, of Boon, (Cent. fur Gynak., No. 36, 1901) describes the case of a primipara (age not stated), who was delivered in the obstetric ward of the hospital. The presentation was left occipito anterior. The vagina was very narrow and rigid; it presented numerous water-like elevations and a muco-purulent discharge, but no gonococci were found. Twenty-two hours after the pains began the anus was observed to be widely dilated, but retained its round contour, and presenting through it was seen the nose and upper lip of the fœtus, and the mouth and the hair on the forehead, whilst the occiput presented at the vulva. The perineum was thinner in the middle, and a typical central rupture was expected, but it tore at its two extremities in spite of all efforts to keep the head back. When all hope of saving the perineal floor was lost, it was cut through centrally with scissors. The lower third of the posterior vaginal wall was torn, the rectovaginal septum was torn and the rectum only in its postero-lateral walls remained attached to the sphincter. The split anterior rectal wall was drawn up to a great distance from the sphincter, which, until the perineum ruptured, was intact. The vaginal wall was sewn up with catgut, the perineum with silkworm sutures, and the last two stitches passed through the sphincter ani and then through the retracted rectal wall on the one side, and again through the rectal wall and sphincter on the other side of the tear. This closed the sphincter, and at the same time brought down the retracted bowel by a kind of purse-string suture. A rubber tube wrapped in gauze was inserted through the repaired sphincter. The healing of the wound was complete; there was no rise of temperature. The bowels were opened on the tenth day, sutures removed on the eleventh day, and an enema given. There was no dyschæsia when the patient was discharged from hospital on the twenty-first day, and the sphincter action, both for fæces and flatus, was completely restored.—*Journal of Obstetrics and Gynecology of the British Empire.*

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Its sxceedingly agreeable properties, and the readiness with which it disinfects offensive lochial discharges, has won for LISTERINE a first place in the lying-in room as a general cleansing, prophylactic or antiseptic agent. Whilst there is no possibility of poisonous effect through the absorption of LISTERINE, its power to neutralize the products of putrefactive changes, and thus to prevent septic absorption, has been most satisfactorily determined by extended clinical test.

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promptly destroys all odors emanating from diseased gums and teeth. It is a perfect tooth and mouth wash, indispensable for the dental toilet.

Lambert's Lithiated Hydrangea

A remedy of acknowledged value in the treatment of all diseases of the urinary system and of especial utility in the train of evil effects arising from a uric acid diathesis. Close clinical observation has caused LAMBERT'S LITHIATED HYDRANGEA to be regarded by physicians generally as a very valuable Kidney Alterative and antilithic agent in the treatment of

Cystitis, Diabetis, Gout, Rheumatism, Hematuria, Bright's Disease, Urinary Calculus, Albuminuria and vesical irritations generally.

Realizing that in many of the diseases in which LAMBERT'S LITHIATED HYDRANGEA has been found to possess great therapeutic value, it is of the highest importance that suitable diet be employed, we have had prepared for the convenience of physicians,

DIETETIC NOTES.

suggesting the articles of food to be allowed or prohibited in several of these diseases. A book of these Dietetic Notes, each note perforated and convenient for the physician to detach and distribute to patients, together with a pamphlet treating of "**Renal Derangements**" may be had by addressing:

LAMBERT PHARMACAL CO., ST. LOUIS.

ADVERTISEMENTS.

Notice-- SANDER & SON EUCALYPTOL is in valuable in inflammation of the mucous membranes, and in all septic and infectious diseases. Apply to Dr. SANDER, Belle Plaine Iowa, for sample and literature of Sander's Eucalyptol. Meyer Bro.'s Drug Company, St. Louis, Mo., Sole Agents.

A Lesson from the Masters.

The study of the practice and teachings of the really great men in medicine is a fruitful source of knowledge and practical guidance in the management of disease. Two principles are clearly recognizable; first, that nature possesses the ability to successfully combat the acute infectious diseases without the necessity of resort to powerful drugs for the relief of symptoms; second, that treatment is most successful which is most simple and which has for its object the reinforncement of nature's methods of antagonizing the encroachment of the disease process. The application of these principles constitutes the most successful methods of treating influenza, pneumonia, bronchitis and the numerous winter diseases associated with inflammation of the respiratory organs.

One method of treating these conditions is by administering a powerful and, in truth, a depressing drug for practically every symptom, e. g. opium in some form, to control cough, a cardiac and metabolic depressant to reduce fever, stomach-disturbing remedies as expectorants, etc. This plan of treatment is, authorties assert, antiquated, irrational and ineffective. On the contrary it is a matter of absolute fact, proven by experience, that if a patient with pneumonia, influenza, severe bronchitis, is properly nursed, given adequate easily assimitated nourishment and be given Gray's Glyc. Tonic Comp. in dessert to tablespoonful doses every three or four hours, that patient will withstand the attack much better and be suriprsingly free from the pronounced depression which accompanies and succeeds these diseases. This plan of treatment has also the great advantage that the patient is spared the baneful effets of excessive drugging.

Gray's Tonic not only fortifies the patient's strength, aids digestion and assimilation, but has an unquestionable influence in palliating the symptoms of respiratory inflammation.—The Purdue Frederick Co., 15 Murray St. N. Y.

Some Obstinate Bladder Cases.

By George W. Hopkins, M. D., Cleveland, Ohio.

John C., aet 31, occupation, patrolman. Following exposure, patient experienced bladder symptoms as follows:

Frequent urination, tenesmus, hypogastric pain and a temperature of 101.4 degrees.

The urine was scanty, turbid and loaded with mucus.

Diagnosis: Acute cystitis.

Treatment consisted of rest in bed, restricted diet, anodynes for the tenesmus, diluent and alkaline drinks.

The acute symptoms promptly subsided, but the urine continued abnormal despite the general measures employed and the internal administration of urinary antiseptics.

Irrigations with boric acid solutions of varying strength proved unsatisfactory, as did also solutions of potassium permanganate and silver nitrate similarly applied.

A twenty per cent. solution of glycothymoline was then substantiated for irrigation, and the improvement was marked and continuous until recovery was perfect.

Harry R., aet 43, occupation, bookkeeper. Had a history of bladder trouble of several years duration.

His urine was blood tinged and loaded with mucus.

Microscopic examination revealed an abundance of ammonia, magnesium phosphates, numerous disintegrating pus corpuscles, blood corpuscles and blood shadows.

Repeated examination with the sound gave negative results, but a skiograph taken with a high vacuum hard tube revealed a small calculus which had persistantly evaded the sound in previous examinations.

Lithotomy was performed and the calculus removed, but the urine failed to return to normal.

Irrigation in turn with boric acid, potassium permanganate and silver nitrate solutions proved unsatisfactory.

Glyco-thymoline irrigations proved satisfactory from the start and recovery was ultimately perfect.

William L., aet. 55, occupation, saloonkeeper. Had a history of repeated attacks of gonorrhœa which were never appropriately treated.

Urine was voided with great difficulty, at frequent intervals and loaded with mucus. Reaction was alkaline and the microscope revealed an abundance of amorphus phosphates of calcium and magnesium, flat epithelial cells, disintegrating pus corpuscles, and indigo crystals.

DROPSY Immediate relief for and permanent cure by the use of ANASARCIN

DOCTOR:

Have you a patient afflicted with Bright's disease, valvular heart trouble, Cirrhosis of the liver, Exophthalmic Goitre or any other pathological condition in which the natural balance between the arterial and venous systems has been destroyed?

If so, do not let your patient die without a fair trial of ANASARCIN a combination of the active principles of oxydendron Arboreum, Sambucus Canadensis and Urgenea Scilla the most reliable preparation yet brought to the notice of the profession for the relief of the above named diseases. ANASARCIN has only recently been offered to the profession, but the phenominal success which it has achieved in so short a time is sufficient evidence that our claims are not exaggerated.

Do not take our word for this but send for trial package free with literature and testimonials. Sold only to physicians.

A Few of our Many Testimonials.

THE A. T. & S. F. HOSPITAL ASSOCIATION.
FORT MADISON HOSPITAL.
ANASARCIN CHEMICAL CO.,

FORT MADISON, IOWA. August 12th, 1901.

Gentlemen:—I want to thank you for the box of Anasarcin Tablets and tell you that they did for me all and more than you claim for them, and I hereby give you liberty to use my name to the effect that I know of nothing that begins to come up to them to act on the kidneys and reduce dropsy. I had acute albuminuria and was bloated from my toes to my chin, terribly. I had taken quarts of infusion digitalis, and other diuretics and cathartics but it would not take it out.

The day I received them I commenced taking 1½ tablets three times a day, and for five days I passed 125 ozs. of urine every twenty-four hours. and within ten days every bit of the bloating was gone: then I took one tablet three times a day for two weeks.

I am afraid to leave them off for fear that the bloating will come back, but I have not taken any for three days. Would you advise my continuing them? I have told a number of my professional friends, and if they had not known of my condition they would not have believed it possible.

I am Surgeon of the Santa Fe Hospital Association at Joliet, Ills., and am here at Fort Madison Hospital on a visit. I stood the trip finely. The Surgeon in chrage here is going to order some Tablets in his next requisition. Would be pleased to hear from you.

SMITH T. FREGUSON, M.D., Joliet, Ills.

Later Dr. Ferguson sends us the following from Hot Springs, Ark., where he had been staying for a few weeks.

Anasarcin Chemical Co., Winchester, Tenn.

Gentlemen:—I thought I would write and tell you what wonderful effects your ANASARCIN TABLETS had on my patient, Capt, Hill, of Joliet, Ills., also, for instruction as to their further use. Capt. Hill just received second box of Tablets last night. He came here from Joliet, Ills.. our home. four weeks ago yesterday. When he arrived here, he was very much emaciated, weak, breathing 40 times to the minute pulse 120 to the minute and feeble: feet and legs, also face, badly bloated and for weeks could not lie down. I thought for 3 days he would die. He was passing not more than 8 oz. of urine in 24 hours. I commenced giving one of my Tablets every three hours. and in twenty-four hours he was passing 40 oz. of urine each twenty-four hours, breathing about 28 to the minute, pulse 90 regular, and for the past four nights has slept in bed, no bloating. I am still giving him 2 tablets a day. Would you continue them? I have talked ANASARCIN to a number of the Doctors in Hot Springs.

SMITH T. FERGUSON, M. D.

Paulding., Miss. Aug. 12th, 1901.

Anasarcin Chemical Co.,

Gentlemen:—I used the Anasarcin Tablets sent me on a lady patient fifty years old, suffering with valvular trouble and palpatation of the heart. Her condition was desperate. The Tablets relieved her at once, and she is now doing her work. I consider them the finest thing in valvular diseases of the heart I ever saw.

Yours truly,
W. T. STREET, M.D.,

Anasarcin Chemical Co.,
Winchester, Tenn.,

Helena, Ark., Nov. 26th, 1901.

Gentlemen:

Enclosed find $2.00. Send me some more of your tablets, as many as you can

So far as testimonials are concerned, I feel it my duty, and consider it a privilege to say that your preparation is the best thing for dropsy I ever saw; it beats digitalis, strophanthus, scoparius, squills, acetate of potash and the hydragogue catharctics all together. After a successful experience of ten years with dropsy, it is the best thing I have tried. You may use my statements as you choose.

Yours truly,
H. B. HOUSER, M. D.

Anasarcin Chemical Co.,
Winchester, Tenn.,

Tacoma, Wash., June 12, 1901.

Thanks for your sample of Anasarcin Tablets. They are acting marvelously. The little boy I am treating was so far filled up that he had to be propped up at night. I carried my trocar in my pocket to use it if needed at a moment's notice pursuading the parents to hang on from day to day expecting the Anasarcin hourly. It arrived on the 4th, put him on 3 tablets a day, epsom salts each morning. Saw the boy on the 9th, abdomen reduced 4 inches, rapid heart beat, almost normal, and able to play about. All œdema in extremities left completely. Please send me at once 2 more boxes of Tablets and one bottle of Elixir; enclosed find $5.00 P. O. O.

Respectfully yours,
E. SCHWARZ, M.D

THE ANASARCIN CHEMICAL CO.

Winchester, Tenn.

Examination confirmed diagnosis of chronic cystitis due to urethral stricture and hypertrophied prostate.

Catelectrolysis by the slow method removed the stricture and Bottini's operation relieved the enlarged prostate, but the urine failed to clear up as desired.

The cystoscope showed marked changes in the bladder walls, but catheterization of the ureters yeilded negative results.

Appropriate urinary antiseptics were administered internally and silver nitrate solutions by vesical irrigation with only slight improvement.

Irrigation with twenty per cent. solutions of glyco-thymoline gave early and continuous improvement until recovery was perfect.

Rheumatism.

Independence, Mo., Sept. 10, 1901.

Gentlemen.—Enclosed find two dollars for which please send me by return mail two ounces Pulv. Salo-Sedatus. I have used the Sample you sent me on a very stubborn case of rheumatism with excellent results. Three physicians have had the case and I can truly say we have tried everything in the way of antipyretics without doing half as much good as one 10 gr. powder of Salo-Sedatus. I am a new convert and propose to use it extensively. Respectively, C. D. McCoy, M. D.

Alcohol and Infection.

It has been shown by Abbott and others that alcoholic animals are more susceptible to infection with various organisms than normal animals. And Laitinen, after having studied the influence of alcohol upon infection with anthrax bacilli, tubercle bacilli, and diphtheria toxine in dogs, rabbits, guineapigs, fowls, and pigeons reaches the same general result, and this with certainty and directness. Under all circumstances alcohol causes a marked increase in susceptibility. no matter whether given before or after infection, no matter whether the doses were few or massive, or numerous and small, and no matter whether the infection was acute—anthrax, or chronic—tuberculosis, or more the nature of an intoxication—diphtheria. The alcoholic animals either die while the control remains alive, or in case both die, death is earlier in the alcoholic. Without going into details in connection with the experiments—and there is room for further work here—may be said at this time that the facts brought about by the researches of Abbott, Laitinen, and others do not furnish the slightest support for the use of alcohol in the treatment of infectious diseases in man.

MARTIN H. SMITH & Co.,

68 Murray St., N. Y.

Being constanly in the treatment of a considerable number of Phthisical Hospital patients, it is in order for me to state, that in the persistent cough so harrassing to the patient, and preceding or accompanying pulmonary hæmoptysis or hæmorrhage, I have found Glyco-Heroin (Smith) an invaluable remedy, applicable in the vast majority of cases of Phthisis Pulmonalis, and far preferable to combinations of morphia or codeia or any other of the Heroin compound which I have tested.

Under above conditions Glyco-Heroin (Smith) may be satisfactorily relied on to ânswer indications.

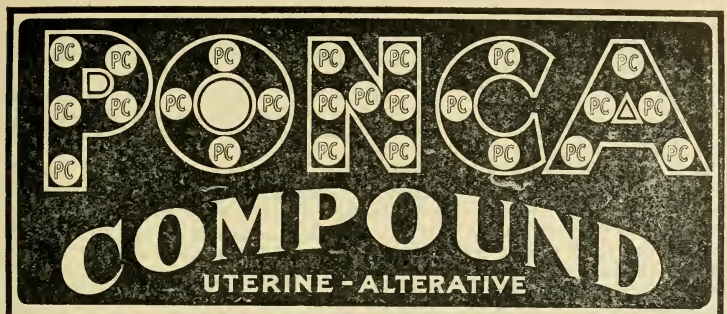
I also found this happy combination exceedingly valuable in the troublsome, dry, so-called stomach cough following lagrippe, and supposed to be dependent on irritative Pneumo-Gastrio Nerve.

CHAS. BREWER,

Resident Physician, N. T. State Prison.

Household Filters and Milk.

The Madras Health Department has issued a memorandum on the subject of household filters and milk. It states the object of filtering drinking water, and adds that nearly all the domestic filters in the market allow micro-organisms to multiply their interiors, so that filtered water contains a larger number of such organisms than unfiltered water. Filters, therefore, which contain animal charcoal, carbon, sponge and a variety of other substances should not be used. It gives sensible instructions in the use of the "three-chatty filter." It is worse than useless to boil water first and then filter it—filter first and then boil. As regards milk, it says that as it has highly nutritive properties, micro-organisms multiply in it with incredible rapidity at the temperature of air. Every hour milk is kept, unless in ice from the very first renders it more and more liable to be harmful. Even boiling milk, which has been kept for some hours, does not cause it to be entirely harmless, for, though the organisms in it may be killed, their products remain and may cause considerable intestinal disturbances especially in children. As a moral, the memorandum concludes as follows: "See that the cow, the milkman, and the pot are clean, that dirty water is not added, and don't use milk that is several hours old."—*Indian Lancet, Sept. 30, 1901.*



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The matter of diet is occupying the minds of the Medical Professien more today than ever. The question is: what diet to prescribe. What every invalid, no matter what the disease, requires is nourishment that is highly assimilable, digestible and nutritious, besides necessitating as little bulk as passible.

Plasmon

fills all of these requirements. It contains over ninety per cent. pure milk albumin. It is not a substitute, but is ALBUMIN. It will digest to the extent of 99.4 of its bulk, and assimilate ninety-four per cent. It contains neither fat, sugar nor alkali, and it is in no sense of the word a DRUG, but a tastless, odorless and soluble food.

"It is SUPERIOR even to meat in nutrient value."— *Virchow.*

It causes no rise in temperature in febrile states, but maintains the strength. Wherever a nutrient is indicated, PLASMON will be found to be ahead of any other food known.

Literature, Samples, etc., postpaid on request.

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1361 Broadway New York City.

Influenza--Its Etiology and Treatment.

By Wm. F. Keins. M.D., Physician to Women and Childrens' Hospital, Newark, N. J.

In reviewing the literature of this very important disease, it will be observed that it is epidemic in character, and at various periods it has become pandemic.

Its first recorded appearance in the United States was in the summer of 1627, when it appeared in the colony of Massachusetts. Since then it has shown itself in this country more than twenty times.

It has generally started in some of the countries of Asia. The last pandemic (1889–90) originated in Central Asia in October, and traveled Westward through Russia, Germany, France and England to the United States. It spread with remarkable rapidity, reaching New York City the last of December. The disease seems to follow lines of travel, and its rapidity of spreading increases with improved methods of travel. It is an acute infectious disease which has its seat in the mucous membrane of the respiratory tract, and is in all probability due to the *bacillus influenza*, which is found in abundance in the sputum and the nasal secretions of all patients suffering from the disease.

Its dissemination seems to be from individual to individual, more particularly from sputa direct on handkerchiefs and napkins. This is scattered in the atmosphere and inhaled. In the large cities high winds with dust has been observed to be frequently simultaneous with the very rapid spread of the disease. While the bacillus influenza does not stand prolonged drying, it is no doubt able to survive moderate drying for a short time. The expectoration on the streets of a large city is amply sufficient to fill the dust-ladened atmosphere each day with the freshly expectorated bacteria. These highly pathogenic germs lodge on a mucous membrane more or less lowered in tone and vitality by exposure to cold and damp atmosphere, or by internal congestion due to interference with the function of the skin. They find a fertile soil for growth. The growth of the bacteria is rapid and the elaboration of their toxines is equally rapid.

The local effect of these toxines is to still further impair the cell activity of the mucous membrane, produce local irritation, and increase the congestion by its paralyzing effect on the vessel walls. This lays the foundation for the establisment of a broncho-pneumonia, perhaps the most frequent complication of influenza or La-grippe In some cases an insidious lobar pneumonia is established, portions of the lung apparently becoming paralyzed from the extreme irritation.

The general systemic disturbances are due entirely to the absorption from the respiratory tract of the toxines elaborated by the bacteria. These are manifested through the nervous system and the circulatory system, extreme cardiac depression being the most prominent.

Treatment.—It is apparent, therefore, in the treatment of this disease, that while the heart must be supported by stimulants and tonics, the nervous symptoms allayed, the gastrointestinal disorders corrected, some remedy must be chosen to relieve the distressing symptoms arising from the respiratory derangement. We have present an atonic, sluggish condition of the lungs, which frequently gives rise to the most obstinate and distressing cough, various combinations of opium, morphine and codeine have been used and with a degree of success. But while they relieve the cough, they do it by their depression of the nerves of sensation without any beneficial effect to the lungs by way of stimulation to the respiratory system which has received the force of the depressing influence of the tonics. On the other hand, they lock up the secretions, which should be especially active in order to estimate the toxines. Stomach disturbances, constipation, excessive narcotic effects, diminutive of expectoration, rise of temperature are some of the undesirable conditions produced by codeine and morphine preparations.

The profession has long felt the need of some remedy to control cough free from these injurious effects. No one is more skeptical than I of the merit of articles written for the express purpose of introducing new remedies, but I believe it is only justice to my colleagues, and to the people whom we serve, to discuss in writing as well as verbally a really meritorious remedy for the relief of suffering, a remedy that is backed up by both physiological and clinical evidence. With this object in view, I desire to give below a few clinical notes in evidence of the aid I have received from a most efficient preparation, terp-heroin, (Foster).

I was induced to use this remedy not only by the recommendation of my colleagues, but after a careful study of the clinical and physiological evidence of the drugs comprising the active constituents, heroin and terpenhydrate.

Heroin has been found by H. Leo (Deutche Medical Wochenche, March 23rd, 1899) Floret (Therap. Monatshefft, June,

Antiphlogistine Antiphlogistine Antiphlogistine Antiphlogistine Antiphlogistine
PLEURISY BRONCHITIS FOR PNEUMONIA PLEURISY
RHEUMATISM TONSILLITIS FROST BITES ERYSIPELAS BRONCHITIS ULCERS ECZEMA OHCHITIS BRUISES
BRUISES BURNS BRONCHITIS ERYSIPELAS PERIOSTITIS SYNOVITIS PNEUMONIA PLEURISY FELONS PLEURISY
BOILS MASTITIS ERYSIPELAS LA GRIPPE BUBOES SPRAINS

Bleed but Save the Blood

Blood-letting, Blistering, and Counter-irritating are good in principle but too heroic and severe in application.

Use Antiphlogistine warm and thick, which, working through reflex action and through dialysis, bleeds the patient into his own superficial capillaries and the over-worked heart and congested organs are relieved.

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COMPOSITION: ESSENTIALLY ANHYDROUS SILICATE OF ALUMINUM AND MAGNESIA, C. P. GLYCERINE AND HARMLESS ANTISEPTICS.

1899) and others to allay cough, stimulate respiration and to be free from the evil effects of morphine and codeine. The value of terpenhydrate in coughs is well known.

Terp-Heroin (Foster) then allays cough, but at the same time stimulates respiration and thus assists the heart in relieving dyspnœa and cyanosis. It does not increase the serous element of the secretion of the mucous membrane, but by stimulation increases the action of the lungs, establishes resolution and causes the waste products to be thrown off. It gives tone to the lung tissue and avoids stagnation, thereby reducing to the minimum the tendency to pneumonia complications, in evidence of which I offer below reports on a few of a great number of cases of influenza I have treated:

Case 1.—Mr. H., aged 38 years, came into my office November 25th. He was very weak, distinctly cyanosed, and his cough was so troublesome that, with great difficulty, he gave me a history of his disease. Ten days previously he had been taken with severe pains in the head, back and limbs, followed by a cough which was so bad that he had not slept for a week. He had lost fifteen pounds; pulse 124 per minute; temperature 101; harsh breathing, dry and moist rales over his entire right lung. He was put on strychnine sulphate gr. 1-30 and terp-heroin f3i every 3 hours. The next morning he said he had slept well, the first sleep he had had for a week. Temperature was 99 5 deg. F.; respiration easy, and pulse 95; had a slight attack of coughing that morning when he awoke. His spells of coughing in the morning gradually grew less, his pulse better, cyanosis disappeared, and by the 5th day his cough had entirely disappeared; pulse 70, and convalescence was fully established. The lungs cleared up without any further trouble. He was so much pleased with the relief that he received frem the terp-heroin (Foster) that he always speaks of it when he sees me. During his illness his daughter was taken with the same disease. She was immediately put on terp-heroin, and her cough, which at first was severe, was at once controlled and gave no further trouble.

Cases 2–3.—Nov. 8, 1901, Mr. and Mrs. H., came into my office, giving a history of la-grippe for which they had been treated by another physician, but which had left them both with a harrassing cough. They both coughed so violently while in my office, that the family in the same house remarked about it to me after they had gone. I put Mrs. H. on a cough mixture containing codeine and to Mr. H. I gave a sample bottle of terp-heroin (Foster). I saw them the following day and Mr. H. was much improved, while Mrs. H. had received little or no benefit. I ordered Mrs. H. to also take terp-heroin f3i every 3 hours. The following day both were very much better and three days later their coughs had disappeared entirely. To their son who was coughing severely they gave the same remedy with a similar result.

Case 4.—Mrs. L., age 65, was taken, on January 11, 1902, with violent pain in the head, back and limbs, and with marked evidence of inflammation of the respiratory tract. Pulse was rapid and weak. The systemic depression was profound, showing intense intoxication. Free action of the bowels and other secretions was secured by the use of calomel. Quinine and strychnine were exhibited to support the system and heart. Terp-heroin (Foster) was given in doses of f3i every 3 hours for the cough, and as a respiratory stimulant. The cough was completely controlled, respiration much improved, expectoration was free. In a few days convalescence was established and an uncomplicated recovery the result.

From the cases cited above and numerous other similar cases observed, I am compelled to say that I am more than pleased that the profession has been offered a remedy of superior efficiency in the control of obstinate cough and free from the disadvantages of the opiates and other remedies used by the profession.

Summarizing, we find that terp-heroin (Foster) has these advantages: Instead of interferring with the secretion of the respiratory system it assists. It stimulates respiration and prevents stagnation of the secretions. It does not interfere with the action of the heart.

It is not constipating.

It does not produce disturbance of the stomach.

It is not only paliative but curative.

It is pleasant to the taste, even to children.

It is an elegant preparation.

There is no danger of acquiring the drug habit.

It is my opinion that it is a most reliable adjunct in the treatment of all diseases of which cough is a disturbing symptom, and especially la-grippe. I unhesitatingly ask my colleagues to do as I have done, try a sample bottle of terp-heroin (Foster). I believe it will thereafter constitute a much valued aid in relieving cough, and be a part of the daily armamentarium of all who have given it a thorough test.

GLYCO-HEROIN.

(SMITH)

Coughs, Bronchitis, Phthisis, Asthma, Laryngitis, Pneumonia and Whooping Cough.

Glyco-Heroin (Smith) has passed the scrutiny of both clinical and scientific investigation and its therapeutic value has been well defined and established by prominent men in the profession of medicine.

Each teaspoonful represents one-sixteenth grain Heroin with

Ammonium Hypophosphite
Hyoscyamus .....
White Pine Bark.....
Balsam Tolu.....
Glycerine and Aromatics..

A true exact solution of Heroin in Glycerine.

Permanent and unalterable through age.

to enhance the palliative effect of Heroin and to embody decided curative properties in this preparation.

Glyco-Heroin (Smith) places at the command of the physician and for his convenience a most superb and finished remedy to be accepted and used by him as an ethical preparation with physical characteristics and therapeutic properties far excelling all other remedies of the Materia Medica and Pharmacopœa for the treatment of Coughs in all the various forms

Adult dose—one teaspoonful.

The quantity ordinarily ordered by the physician is two, three or four ounces.

Physicians are requested to write for samples.

SUPPLIED BY ALL RETAIL DRUGGISTS THROUGHOUT THE UNITED STATES.

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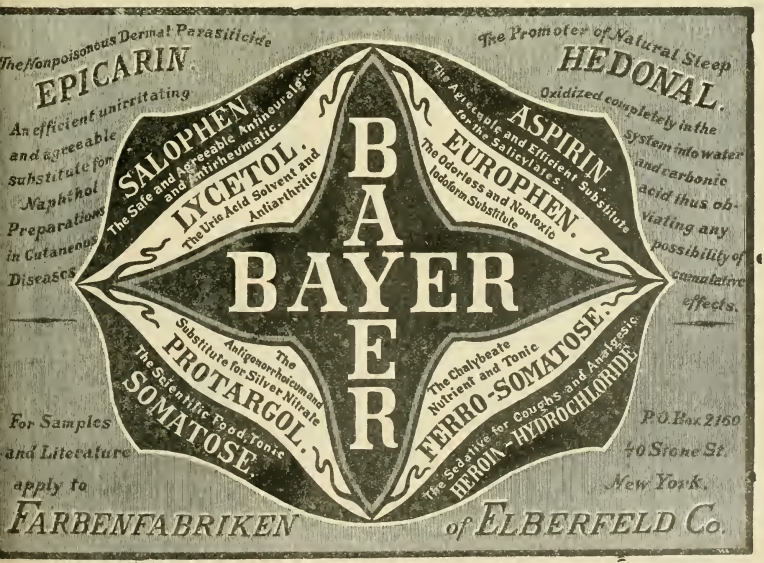
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Food alone contains the "powers of life." Don't wait till Consumption has such a grip on your patient that he can't shake it off. Commence the fight now, by **feeding** him a thoroughly pre-digested and palatable preparation of Lofoten Cod-liver Oil in the form of **HYDROLEINE.** It is the **best defense** against any tubercle bacillus.

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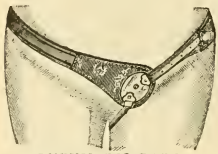

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Give circumference of abdomen on line of Rupture. State if for Right or left.

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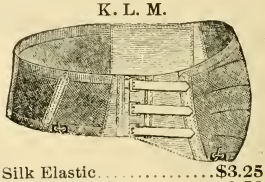

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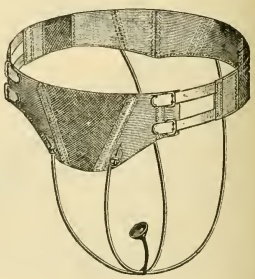

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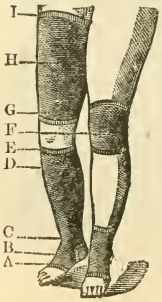

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The Charlotte Medical Journal.

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Perforating Abdominal Wounds: Report of Cases With Remarks.

James M. Parrott, M .D.,Kinston, N.C.

Case I. John Dawson, colored, shot about 5 p. m., man of fine physique, and apparently in perfect health. Profundly shocked, rapid pulse, increased respiration, very much depressed,cold profuse perspiration, cold extremities, vomited several times, though not very much, pupils dilated and patient restless. This was his condition when seen at 7 :10 p. m. It looked very much like a hopeless case.

Heat was applied externally, morphia and atropine given hypodermically,followed with strichnia. Patient, to my surprise, soon showed some symptoms of reaction. Found bullet hole, 38 caliber, to the right of the umbilicus and on a level with same. Immediately sponged the abdomen with very strong solution of "lye" soap (home made) and hot water, and applied a pad wet with 1-500 bichloride solution.

After careful steralization of instruments and disinfection of hands I began the operation. Abdomen opened in the median line, some blood in cavity. Abdomen at once filled with very hot saline solution. Intestines were then carefully inspected and 15 perforations closed, At one point the gut was badly lacerated and torn at least two-thirds through. Resected 2 inches, did circular enterorraphy. This was rapidly accomplished by introducing a suture at the mesenteric attachment and one just opposite. These were held taut by my crude assistant (no other doctor being present) thus practically making two simple perforations, one on each side. These hurriedly closed. Czerny Lembert sutures being used.

Intestines were returned to the cavity as fast as possible, and all through the operation the cavity was kept filled with hot saline solution. Just here let me emphasize the especial value of the hot saline solution in such cases, particularly for its stimulating effect. The free blood in the cavity was probably due to parenchymatous hemorrhage, and was not at all troublesome.

The abdominal wound was closed with through and through silver wire and silk sutures, and wound dressed in the usual manner. The patient was carefully nursed and stimulated throughout the next few days. Strange to say, the day following the operation he began to rally, and from that time on made an uneventful recovery. I say strange because I operated without professional assistance with very unfavorable surroundings in a negro house and on a very desperate case, and for these reasons this case is reported. It serves to show the importance of doing something for these patients. I am, however, opposed to too much indiscriminate operating for fear of bringing surgery into disrepute. However, if the least in doubt operate.

Case II. Dave M., colored. Strong robust nogro man. Gunshot wound in abdomen, 32 caliber bullet entered to the left of the umbilicus and slightly below the same. Very little shock, pulse 78, much nauseated and frequent vomiting. Operation begun one hour after the shooting. Operated in a negro boarding house. Mediam incision. Intestines hastily removed, and four intestinal and four mesenteric wounds closed, all were remarkably large, due to the fact perhaps that the bullet ranged obliquely to the right. There was profuse hemorrhage from mesenteric artery which was ligated. Duration of operation 3-4 of an hour. Patient stood it fairly well. For several days recovery seemed certain. However, on the fifth day fever developed and on the sixth day he died. Immediate cause unknown. No evidences of peritonitis. Was very skillfully assisted by Dr. Henry Tull and Dr. W. A. Parrott, both of this place.

This was a favorable case for operation, and from a scientific standpoint should have recovered. I am at a loss to explain his death. It was very interesting to note that though he was remarkably well developed, and with no evidences of any disease at one point the mesentery and gait were studdied with tubercules. It might have been one of those extremely rare cases of primary intestinal tubercular infection.

Case III. Mr. B. Gunshot wound of the abdomen. Bullet 32 caliber, entered just below the ribs on the left side, in line with the nipple, traversed the cavity obliquely, and made its exit on the right side a little in front of the kidney. Pulse rapid, some nausea, no vomiting, clamy perspiration, usual symptoms of profound shock; stimulants given hypodermically, hot water bottles applied, and saline infu-

sion administered. Abdomen opened in medium line, two large perforations found in stomach, which were rapidly closed by Lembert sutures. No other perforations. A liver wound caused considerable hemorrhage. This was cauterized and packed with iodoform gauze which sufficed for drainage. This I thought necessary. Abdominal wound was closed with through and through sutures. The reaction was very slow. The usual after-treatment pursued, finally, however, on the 6th day he died, from exhaustion (?)

Case IV. Calvin S., aged 22, colored. Stab wound of abdomen. Half inch wound just above McBurney's point. Knuckle of gut protruding, probably 3 inches, slight shock. Cut in a fight in a bar, and when seen was in back room of the same. Immediate preparations for operation were made. This was performed on the spot. One perforation was found and sutured. Patient made a rapid and uneventful recovery. Assisted by Dr. W. T. Parrott.

Case V. Jacob D. Aged 27, white. Was cut in the right iliac fossa during Xmas holidays. Very drunk at the time. Was carried four miles in a wagon before the seriousness of his condition was known. Was seen three hours after the accident. Three feet of the intestines protruded. Condition of the ptient very bad, pulse rapid and weak, cold clamy perspiration, nausea, very restless; in fact, presented every symptom of a very profound shock. Stimulants, (strychnia, ammonia, atropia, etc.) were administered, and heat applied. The intestines were washed very thorough with very hot saline sulution. The abdominal wound was enlarged and the guts carefully inspected. One perforation near the point of exit. That part of the intestines which was already out was returned, remainder examined and to my surprise I found the intestine entirely divided at one point with both ends in the abdomen, and had it not been for my precaution in examining the guts which were in the abdomen this would not have been discovered. I have not used the Murphy button since my first experience, and in this case I resorted to my original method described in Case I. I put in a Czerny Lembert suture at the mesentery and one exactly opposite on the other side of the gut. By holding these tight two perforations are the result, which are closed in my usual way (Czerny Lembert sutures). The abdominal wound was closed with through and through sutures and patient put to bed. Stimulants were continued and patient slowly reacted. He finally made a complete recovery. To-day (3 years after) he is well as ever, none the worse (appearently) from his injury. Operation was performed without assistance and in the kitchen of one of our best farmers, Mr. Ferny Dupree.

My practice in all abdominal work has been to establish drainage when the least suspicion exists as to possible infection. This must be determined in each case. In two of the above cases I would have done so had I had the proper material with me. One died, the other recovered. The kind of drain is also important, almost as much so as to when to drain. I recently tried the Mikulicz and found it very valuable in arresting a troublesome capillary hemorrhage. The pain produced by removing a simple gauze drain in many cases is very severe, and I usually prefer a perforated glass tube containing a strip of gauze reaching to the floor of the pelvis. All cases requiring irrigation of course should be drained.

Granting that a missile has penetrated the abdominal cavity, the question arises shall we operate. I am sorry—almost disgusted to note a rising tendency in the profession opposing operations except under the most favorable conditions. It is entirely true that the mortality (should an intestinal perforation exist) is very high either with or without operation, but there is no question but that statistics favor surgical interference. In military surgery (for very plain reasons, small projectile with high speed, patient's stomach and intestines empty, collapsed, etc.) I believe that it is best taking all cases as they present themselves not to operate. In private practice or hospital service these condition do not exist, and there is no earthly reason of any consequence against surgical procedure.

I selected the cases above reported solely for the purpose of showing what can be accomplished under the most unfavorable surroundings. They were all operated upon in private houses, (rathar dirty ones) bar-room or kithen. They are reported as they occurred and represent my mortality with this character of wounds. As to asepsis, antiseptics, etc., it is really wonderful how much one can do along this line if one thoroughly understands the basic principals, sterilize by boiling instruments, towels, sponges, dressings, sheet, etc., in two kettles or pots carefully covered. Use bichloride and spirits turpentine freely on hands and abdominal wall. Be diligent as to details, (the little mistakes count). Drain the cavity when in doubt. Be sure to suture all perforations. Work rapidly, (time counts especially in shock) carefully inspecting every inch of gut and mesentery

and other viscera if necessary. Use hot saline solution freely. Be sure as the asepsis of the sutures and ligatures (for emergency work I use St. John Seven's silks). To sum it all up, pay strict attention to minor matters and operate, particularly so if you are reasonably sure the intestines have been perforated.

Called to a case of abdomen wound. Has cavity been entered? Yes. Then are the intestines punctured, or any viscera seriously injured? This question is, of course, most important since if it is answered in the negative one would assuredly not operate.

In reaching a proper conclusion many points must be carefully considered and past experience brought into exercise. Even after every possible precaution sometimes one falls into error. This should not deter one from operating, however, should judgement decide in favor of surgical interference.

The point of entrance is of some little importance, as is also the probable condition of the viscera as to emptiness. If a bullet enters the abdomen above the umbilicus while the viscera are empty they are less liable to puncture.

Should the stomach or intestines be perforated by a small bullet of highspeed there is no question but that it may heal without surgical interference. Such cases are exceptional in civil practice. Shock is a fairly reliable, though not an infallible symptom of perforation. Personally I place much reliance on nausea and emesis, though I must admit I have been misled by them. Symptoms of internal hemorrhage always indicate operation-circumscribe emphysema around the wound is fairly reliable also.

Senn's hydrogen gas idea even if it were entirely safe and free from indirect danger (forcing out feces, etc. into the cavity) is impracticable in private work.

Concerning the control of hemorrhage from the viscera, I have nothing of special interest to report except to lay stress on the value of the Mikulicz drain for surface oozing as well as for drainage.

The surgeon is sometimes confronted with the question, shall I resect or attempt to close the perforation as it stands? Here as elsewhere I plead for conservatism. If in serious doubt, however, and resection can be done quickly with but little loss of time I prefer it, particularly if the body of the wound be on the mesenteric side of the gut, or if it be very much lacerated.

The after-treatment is of prime importance. Many points arise which can only be decided by the merits of the case. The idea advanced by the text-books are generally followed, with variations to meet individual requirements. There is only one point of special interest which I am very anxious to make prominent, and that is the administration of alcohol to inebriates. While I usually oppose whiskey in abdominal work and fractures, I must say that it seems to be almost a necessity in the after-treatment to prescribe it to those accustomed its use.

Puerperal Fever.*

By W. Gill Wylie, M. D., New York.

I want to sort of supplement the last lecture which was one in which I outlined some of the ways in which we should handle labor cases to prevent bad results.

The subject I wish to talk about this morning is one which has been very much written about and one about which all practicing physicians must have something to do, that is, puerperal fever. Fortunately for me I saw lying-in women when they were treated in the old way, where a great deal was left to the mid-wives, except among the wealthier classes. At that time about 30 years ago after a labor, puerperal fever was looked upon as due to malarial fever, or to the fact that the nurse had made some mistake in letting her get up too soon, or something of that kind. Doctors never dreamed it was almost always due to septic infection carried on the hands of the doctor or nurse. It was not understood at all, and until the germ theory came up, no efforts were made to make a practical application of cleanliness, and very little progress was made. The most eminent obstetricians in New York City up to 20 years ago would even write books on puerperal fever, taking the ground that it was a special disease, claiming that it was caused by the easterly winds, etc., that may seem to belong to the dark ages but it was a fact. The death rate during the winter and spring months was enormous, in hospitals running as high as from 10 to 30 per cent. The doctors of all women delivered would examine a puerperal fever case, would go from bed to bed, wipe off their fingers with towels and examine women that had been delivered the night before, so you can see how it was transmitted directly by the doctor, 30 years ago no one understood the cause of it. and nothing like complete cleanliness was practiced.

*A clinical Lecture delivered at the New York Polyclinic.

At that time the germ theory was beginning to be taught. Lister was working at it in England, and we were getting news of it in the journals, but very little was understood.

Dr. Wood, my old preceptor, was a thorough believer in antiseptics, he did not understand it practically, but he drained very thoroughly and used carbolic acid, but his results were good compared with many others simply because he made an attempt towards antiseptics and cleanliness.

When I was an interne 1870 to 1872 in the service at Bellevue I had the idea that this high death rate was due to septic infection. When I took charge of the Lying-in wards, I had two continuous months for my senior did not care for his month, and I had 40 deliveries without a death. Many of these women had a slight rise of temperature, but none had an attack of puerperal fever, that was in the spring of 1872. I attributed that good effect to the fact that I allowed no sponges to be used. I threw away all old material such as oil cloths and things of that kind, had everything clean, all linen and cotton cloths were boiled, so by washing my hands. I use a carbolic acid solution 1 to 40 and only allowing the nurse to take a very small part in the proceedings, such as douching, etc. I secured the foregoing results. It was simply due to cleanliness. I succeeded in reaching such results in the months of March and April, then the worst months of the year. My explanation of this, fact is that winter and spring months are the worst ;that the doctors wore their clothes longer without washing, houses usually are shut up and not as much ventilation or cleanliness practiced, and people do not take baths as frequently as in summer. The natural tendency is to be clean in the summer, therefore sepsis is not conveyed to a patient as much as in the later winter months and spring. I think that practical experience in operating during the summer months shows there is less likelihood of infection during that time than in winter. Heat seems to have no bad effect, in fact I think patients on whom formidable operations are done do better and there is less shock. At any rate those were things I discovered and wrote upon many years before any one believed in them. I was looked upon as a very great crank in regard to antiseptics, and the thing was not practiced until ten years later then it was taken up actively.

When I became a visiting gynecologist, 1882, at Bellevue, I had studied out what I considered even now the best method of treating puerperal fever and I could read you a paper I wrote fourteen years ago, after I had a pretty large experience, and have very little change to make in it. The method was simple, but the very simplicty of it was one of its good points. What I recommended then is what I recommend to-day.

To prevent puerperal fever, get your patient in good condition before labor, that is keep her general health good and just before labor move the bowels thoroughly. Then instead of waiting until labor comes on spontaneously, I calculate closely the time of labor, counting nine months from the beginning of the last menstruation, adding a week or ten days, then giving a dose of oil at night, and as a rule labor will be induced next morning. Knowing pretty well when the labor is to take place, the nurse and doctor are on hand, and accidents are less likely to happen and emergencies promptly attended to and the patient can be gotten in a condition of perfect cleanliness without haste. The Parke-Davis etherial soap is the best bath soap for cleansing the body before labor. A complete bath is given unless otherwise indicated, even her hair is washed. The nurse goes through the same process. She should have nothing on her body that cannot be boiled. Everything about the patient's bed is boiled. The doctor is supposed to take a bath the night before, especially if it is an important case where some surgical interference is likely. He should be clean personally and have clothes that are clean. Occasionally when I could not have a fresh suit, I would put on a dress suit so as to be perfectly clean. Even before labor begins the nurse puts on fresh clothing, changes bed clothes, and the doctor puts on his linen gown, touches nothing that is not clean and washes his hands with running water, soaks them in a sol. 1 to 3000 Bichloride and the nurse must do the same. Nurses must not pick their noses or scratch a pimple, etc. He washes his hands everytime before making an examination, and a nurse must not change a dressing without washing her hands. If he carries out this method to the letter he will be sure of success. Boil everything, wash the hands every time with running water or of green soap or etheral soap. If there is anything that disgusts me with a doctor's idea of cleanliness is to see him wash his hands in a basin of water, running the dirt round and round and rubbing it into the tissues, instead of washing them in running water. In the country I arrange to have running water by having a bag that holds two or three gallons of water, hanging it up and allowing the water to flow in a good stream, that washes away all foul material from the

hands. It is these simple rules that must be carried out.

Move your patient's bowels well the night before and just before labor wash out the rectum with a saline solution. If there is any reason for it, wash out the vagina, but as a rule do not touch the vagina. I do not think a perfectly normal vagina is septic or has germs enough to cause puerperal fever. Of course, if there has been gonorrhœa that must be attended to before labor. I am not afraid to open a vulvo-vaginal abscess a few hours before labor. I have scraped out what appeared to be a septic infection of vulvo-vaginal gland, packed it so that the woman got along without even a rise of temperature, although this woman had gonorrhœa while carrying the child, becoming infected about the second or third month. If there is gonorrhœa I invariably use nitrate of silver, using about 5 grains to 8 ounces, a weak solution 1-3000. This will kill all the gonorrhœal germs that can be reached from the cervix although it may develop afterwards from some of the deeper glands of the vulva.

If a case goes along two or three hours the vulva is washed repeatedly. Keep a clean napkin on to protect the vulva. By paying attention to these simple details I went 25 years without a single death in either a case of labor or abortion that I attended, and it was not luck. I had many cases in which there was more or less complications, but not a single case except one was really infected; that was a very severe case of puerperal fever. After ten days I got the woman out of danger. As a rule when a woman has a rise of temperature after labor it means sepsis. If it is a slight rise of temperature after the use of forceps, or very hard labor, temperature may go to 101; if that is within the first 24 or 36 hours it is insignificant, it is a mere infection about the outer tissues purely from septic material being around and pressure during labor forces it into the system. But when a patient has a decided rise of temperature accompanied by a chill and very high temperature, and particularly if this occurs on the third, fourth or fifth day, or even the latter part of the second day, that means sepsis and, of course, you must not place too much stress upon the *time* of the fever because you may have been manipulating the case, three, four or five days before labor and you may have infected her at that time. But in an ordinary case if there is a very slight temperature that is not of much consequence if that temperature comes early, but if it comes on the third or fourth day, of course, you should exclude any complicating diseases like pneumonia or trouble with the lungs, stomach, intestinal troubles or other complicating conditions of that kind.

I believe that I have delivered 100 women and probably not ten would have a temperature up to 99, that is a practically normal case. If there is a rise in temperature you can put it down to the fact that absolute cleanliness was not observed. Anything like a normal labor, even if it is severe, ought not to cause a rise of temperature, about 98½ to 99, and if there is a rise it means that the doctor or the nurse has not been absolutely clean. When I have a patient with a rise of temperature I blame the nurse, myself, or both.

I do not believe there are five men in front of me who would wash their hands to suit me. If you want to know when your hands are washed clean, try a plan which I use sometimes with my nurses, when they get a little "smart" and though they are perfect, I give them some iodoform vaseline to smear around their hands and then tell them to wash their hands in 10 to 15 minutes and then hand them a silver dollar 15 minutes afterward, and if they can handle it without the odor of iodoform remaining, then I know their hands are clean. That is a test you can apply. It is not a simple or easy thing to wash the hands clean. Look at men to-day using gloves, benumbing their sense of touch, and the inability to do artistic work, and the man who claims that he can do as good work with gloves on has probably never reached the highest standard in developing his sense of touch.

Is there any such thing as Auto Infection?

If a woman's bowels are very much constipated or if there is some complicating disease there can be auto-infection but if *you* treat a normal case with absolute cleanliness, unless there is some complication, there is no such thing as auto-infection. A man could not go 25 years as I have done without so little trouble with septic infection, if there was any such thing as unavoidable auto-infection. I think that the first 15 years of that work was wonderful considering the times. You can find plenty of young men *now*, who have been 10 years without a single death in labor cases for they are beginning to understand in a practical way the carrying out of cleanliness, and during the first 15 years of my practice, the most eminent men in the city would at times have three, four or five cases of sepsis in women at one time who were able and willing to pay the highest prices for treatment.

When I entered Bellevue as a visiting surgeon in 1882, there was a death rate of

80% of all cases of septic infection puerperal cases in that hospital, so that when a patient had a chill on the third, fourth or fifth day after labor, with a high temperature, the doctor in charge was ready to sign the death certificate at any time. He had practically no hope of saving that case. The local treatment was of no value, douching the vagina two or three times in twenty-four hours and washing out the uterus, about two or three times in 24 hours was about all that was a tempted in the way of local treatment. All kindsof drugs were used.

When I went into Bellevue it was with the idea and firm belief that I could take a case that would be sent to Bellevue, within 48 to 72 hours after the onset of puerperal fever, and by giving laxative, I could with local treatment cure four out of five cases, and I have carried out that idea to the letter. The first winter there were nine cases selected for cure because they were characteristic cases of puerperal fever. I treated seven of them and the house staff helped with the others. Seven made a complete recovery. Without this tteatment seven would probably have died and one or two lived. The method I persued was simply this: If on examination the uterus was movable and there were no signs of peritonitis nor phlebitis nor lymphingitis nor exudation or sloughing of the vagina or crevix etc., showing that the infection in the large majority of cases was probably in the uterus, we can assume that septic infection was absorbed through the placental site or the tissues were bruised during labor and that drainage was imperfect and made with blood clots retained membranes and clots; a splendid nidus for the development of germs, but that clots etc., could not develop sepsis without germs being carried in from the outside and that the longer this was left undrained the greater the sepsis, I did not understand just at that time how many different varieties of bacteria caused puerperal fever, but the proper application of the simple treatment cured almost all of them. I had studied out and made this conclusion that no washing out that was done only three times in 24 hours, could get rid of the septic infection in the uterus; that the first thing of importance was to exclude serious complications such as peritonitis, phlebitis, lymphengitis (although in those days almost everything came under the head of cellulitis, then to empty the uterus—after full term labor sepsis renders polution of the os uteri and you can empty the uteri-cavity with your fingers, two of them in the uterus, seperating any diseased tissue with you finger nails in preference to any instrument. Often a curette, large blunt ended, may be of assistance in emptying the uterus thoroughly, but this should not be sharp at the end or small, for the septic uterus is very friable and easily penetrated. Wash out with a solution of 1-100 carbolic acid, Calvert's No. 1, that is not escharotic as are some of the other carbolic preparations. I do not know what the exact difference in the preperations is, but one will scar and cause deep ulcerations and the other will not. I use Calvert's No. 1. Then I found it would not do to take a double catheter or a double irrigating tube; you would simply wash one little spot and you might wash all day and you would not wash out the uterine cavity in the proper sense of the word; that glass tubes would do as long as they fitted the curves of the uterus, but as the uterus grew smaller and rounded it would change in shape and you would want a different tube. It requires an educated sense of touch to wash the uterus properly. Having found out that one washing would not clean the uterus, knowing that coagulated blood mucous, etc., could not be washed out at one sitting, I saw that if you washed out a woman's uterus and wait three or four hours there would be a rise of temperature showing that you had left germs there that were not washed out with the first washing. I discovered by practical experience that if you washed out with 1-100 carbolic acid every hour for from four to six hours you would get the uterus clean; the debris would grow cleaner and cleaner and the patient's temperature would go down and four times out of five you could control all sepsis when confined to the uterus cavity in twelve hours, sometime in six hours, depending upon the extent to which the infection had penetrated into the tissues of the uterus. I carried out that method in Bellevue and have been carrying it out ever since, and I can honestly say that where I have any case inside 72 hours after infection, if something has not been done to drive it through the tubes or down into the veins, I could take that case and personally wash it out myself and cure it, as I have done many times when the old method has failed; cured them simply by that process of washing out. I found the best method was to take a large stiff catheter—I like the old English gum catheter—an expert can examine a woman and find how deep it is before he passes the catheter in, otherwise he cannot carry out this simple process as acurately as he ought. Having found the fundus, introduced the catheter into it, withdraw the stiletto, fill the tube with hot solution of carbolic acid then use

your Davidson syringe, the catheter being well up into the cavity of the fundus, communication properly made with the syringe, then you take the syringe and squeeze very slowly so as not to startle the uterus and bring on a sudden uterine contraction; having slowly injected into the uterus until it begins to flow out in the bed-pan then wash out freely, turning the catheter about in the cavity; keep the patient on her back with the hips raised, inject two quarts of hot sol. 1 to 100 Calvert's No. 1 carbolic acid. You may take a case on the third or fourth day when the uterine cavity is filled with septic material of a certain quality. If you use forcible injections after the first few injections the uterus will contract and your patient will have a sudden shock, a flushed face and a certain amount of septic material will be forced into the circulation. As a rule that is temporary and does no special harm although it is rather alarming and makes a young operator think I was a fool for recommending nitro intra-uterine injections and he may never use it again. But if he is an expert there will be no serious complications.

In washing out use at least one quart of water and better still in some cases two quarts, and one hour from that time repeat the washing and keep it up for six hours. If I do not have Calvert's No. 1, I use boracic acid or hot water. As you go on washing the pieces out they will become smaller and smaller, the shreds will grow whiter and after the fourth or sixth washing there is practically nothing in the washing at all. When the water is practically clean then you know that you have done all that you can do by work unless your washing has been defective and failed to reach some part of the cavity. As a rule, the temperature will go down to 100 or less in six hours. By the fourth washing the descent of the temperature is very marked; at the fourth or sixth it is under control. Then wait two or three hours and give another washing, then give another next day until your temperature stays down 12 hours when your case is out of danger if you keep the vulva clean.

In all cases of septic infection where the infection is within the uterus, the uterus is patulous and the power of the sphincter is practically destroyed. After you have given two or three washings the uterus gets tone and begins to contract, the fundus is pulled forward, the cervix remains large and patulous so that the cervical portion seems as large as the fundus. Introduce your stiletto again and be sure it reaches the fundus at each washing. I have repeatedly seen failures of this kind and to corect such a mistake by carring out completely the washing out. If I have done it once I have done it fifty times. I have done it twice with the same man, trying to explain to him how to save the patient each time. If a doctor has washed the uterus and on examination I find no complications of peritonitis, phlebitis, etc., I simply take it for granted that that doctor has failed to wash out the contracted fundus and germs have been undisturbed, have redeveloped and active infection has begun again. This washing is not easily done unless it is done by an expert. As a rule, I put a little mark, on the catheter a rubber band, so that if I leave the case in charge of some one else, if contraction has taken place, it need not be pushed up too little nor too far but for some time until contractions take place the doctor can be guided by the mark on the catheter.

They can talk about the different kinds of sepsis, and the best thing to do is to let it alone. The late Dr. Lusk used to teach us that, that certain bacteria would eat up the septic germ and the best thing to do was not to give any local treatment, and everything would be all right. This may be so in some mild cases called Soborenic, and if the Bacteriologist could tell me which ones to let alone I might be willing to try it, but having succeeded in almost all cases by this simple method of washing, and getting absolute control, I have no thought of changing it. When you have a sudden rise of temperature the best thing to do is to take hold of that case at once and wash that septic material away before it penetrates into the tissues. If you have a case that has stood five days or more you cannot better that case by prolonging it. It usually ends in phlebitis when neglected, or obstructed veins, but you can follow up that case and you are justified in cutting down and opening that center of septic infection either in the lymphatics or in the veins, if you cannot control it in any other way. I have taken charge of one or two cases of phlebitis where the leg was swollen two or three times as large as the other leg. I have opened above Pourpurt ligament without opening the peritoneal cavity, pushed up the tissues, reached the point of pressure upon the large veins, relieved that, drained it, within three days made out the center of phlebitic infection in the deep tissues of the thigh, cut down through 2 or 3 inches of solid tissue and taken out a pint or more of pus, and saw the patient get well after she had been given up by two of the most eminent men in town. Of course you may have a case where the vein is already infected where the deeper

tissues are infected and where it cannot be washed out. I can often go as far as South Carolina after the first chill and I would be willing to wager that I could cure four cases out of five if telegraphed for a few hours after the first chill. The sepsis remains practically within the uterus and can be washed out for a good many hours later successfully, sometimes three days afterward. If the case has been fooled with by curetting and tamponing with gauze and left to chance of emptying all sepsis at one setting there may be harm done; it is doubtful whether you can effect a cure under those circumstances, for the septic material redevelopes and from 6 to 8 hours the guaze is pluged up with mucosa clots and it readily acts as a dam and forces back the redeveloping sepsis into the sinus and ovaries of the uterus and pelvis or out through the fallopian tubes into the peritonium.

I was called about seven o'clock one evening to see a case by a doctor I knew very well, I had treated two or three cases for him. He could not control the temperature in this case, it went down for two days and then went up again. Then Janeway was called in and pronounced it typhoid fever. I went around and personally did the washing and found a large quantity of foul matter which was held in the fundus, got control of the case and the woman got well.

In a second case four or five days after labor, when it commenced to rise, on examination a clot was found. On the fifth or sixth day she had a violent chill and experts, three of them, were called in. One was a surgeon, another was a colleague of mine and the other a prominent obstetrician who was perfectly satisfied with himself. After consultation they decided to curette the uterus and pack with gauze. Next day they took out the gauze and repacked. On the third day they tried Wylie's method with no effect. When the case was practically given up as hopeless the family insisted upon calling me and the family physician asked me to go and see the case, as the family insisted upon it. He said, the man whom I had been relying upon as consultant said the case was hopeless and he was going to have a dinner party and did not want to be disturbed. It looked to me like a very serious case. The patient was vomiting a greenish vomit, but to my surprise I could not make out that it was a clear case of septic peritonitist which it seemed to be. I found a soft uterus, but the woman was so feeble and weak that she could not resist the pressure. I found that the top of the uterus had caved in, that it was a partial inversion so that the fundus had dropped and rested against the cervix uteri. I went out and made a drawing and told the doctor that if I was right there was a chance to save that woman. This dropping down of the soft uterus prevented them from reaching the cavity that was seething with foul material. I used a large Chamberlain's glass tube and got out a handful of foul material that was evidently the source of infection. The doctor said at once that he was amazed. He said you have gotten out 150 times as much as we did.

Patients may be injured by being burned with carbolic acid, burning the vaginal cavity. The carbolic acid is put out in the water and not thoroughly dissolved. It must be thoroughly dissolved in hot water before using. I found that if you use bicholide it is dangerous; if you use it 1-2000 it goes rapidly into circulation and your patient may die. I have never killed one so far as I know. Carbolic acid softens the uterus but is not absorbed so easily. If after its use the urine appears smoky I weaken the solution.

Report of Five Cases of Asthma Treated With Silver Nitrate Injections*.

H. T. Bass, M. D., Tarboro, N. C.

While at the Philadelphia Polyclinic last January, attending a special week in medicine, I saw Thomas J. Mays treat phthisis, chronic bronchitis and asthma with silver nitrate injections with apparant benefit, in fact, the patients said they were better, their physical signs were less, and the patients' general condition was so much improved that I decided to try it on a nember of asthmatics.

First case, Mrs. Lewis. colored, aged 40. Called on February 1, 1901, to consult me about her asthma; said she had been a sufferer for many years at times, and now it had grown so bad she could not sleep, as the attack came on at night after going to bed, and would last her for several hours, nor, until she was exhausted and overpowered by sleep, did the attack pass off. The nose and throat were clear from obstruction and breathing regular. I injected 5 gtts. of a 2½% solution of silver nitrate in the neck under the skin over the vagus nerve, a little to the outer side of the carrotid artery, about midway between the angle of the jaw and the clavical, according to the instructions of Dr. Mays, and sent her home to return within eight days,

*Read before the Seabord Medical Association, of North Carolina and Virginia, Dec. 18, 1901

which she did, and reported that she was better; that the attack were less and not so long. I repeated the injection on the opposite side, as the injection had made quite a tumor, and she went home to return within eight days, which she did, and reported that she was much improved. She said she had been able to sleep and that her attacks were very slight. I repeated the injeciton on the side first injected and continued the treatment every eighth day until six injections had been given. She reported entire relief and has not had a return of the trouble up to this date. A few weeks after she stopped the treatment she contracted pnemonia and recovered without any asthmatic symptoms.

Second case, Mrs. Whitehead, colored, aged 30. Came to the office in June with asthma. You could hear her wheeze across the room. She said she had come because she had heard of Mrs. Lewis' relief. I injected 5 gtts.of a 2½% solution of silver nitrate under the skin of the neck, over the vagus nerve. She said she had suffered for three or four years, and that she had it most all the time, and especially if she cooked a meal. She reported within eight days much improved, with a small abscess at the site of injection, which often folllows the injection. I repeated the injection every eight days for eight treatments with entire relief.

Third case, Mr. Hughs, colored, aged 26. He came to me July 10, suffering verv much as Case No. 2. You could have heard him across the room and see the heaving of his chest. I gave him an injection of 5 gtts. of a 2½ solution of silver nitrate. He reported in eight days somewhat relieved. I repeated the injection, and on his return he was not so well; I repeated the injection and put him on 10 grs. K. I. On his return I opened a small abscess in the neck, the result of the injection; he had lost what he had gained. Continued the K. I. He did not return for further treatment.

Fourth case, Mr. Walters, age 18. He was an asthmatic. Contracted pneumonia in April and was sick for four weeks. After he began to recuperate he had a return of the asthma. I gave him an injection June 10. He returned within eight days improved; repeated the treatment. He was entirely relieved with two injections, and remained so up to December. 1; on the 14th I repeated the injection. He is now under treatment.

Fifth case, Mr. Philips, aged 35. An asthmatic of ten years standing. Gave injection on July 8, in the right side of the neck. Did not get any relief. He returned on the 10th; repeated the injection. He returned within eight days. Was much improved. Had not had a paroxysm since the 10th. I emptied a small abscess which had formed from the last injection, and injected him again. On his return within eight days there was another abscess to be opened. I did not repeat the injection as he had a proxysm, and both sides of the neck had abscesses, and he objected. There seemed to be enough irritation at the time, and I gave him 15 grs. K. I. three times a day. I did not see him for some weeks. He said he was not much improved and was not so well off as during the treatment. He admitted that he was better during the treatment than he was before, or had been since he stopped, but it hurt him too bad to continue.

Cases 1 and 2 are relieved up to this time; Case 4 to Dec. 1st,and 3 and 5 seemed to be relieved somewhat while under the active treatment.

Dr. Mays is very hopeful for the treatment in asthma, and is enthusiastic over silver nitrate injection in the neck, in phthisis, and endorses the silver nitrate injection strongly in his well-written book on consumption.

Cystitis.*

By H. M. Wilder, M. D. Charlotte, N. C.

Permit me to introduce for your consideration a short epitome upon a disease from time immemorable that has afflicted human kind. It causes almost endless trouble, pain and distress, especially as man approaches advanced age. That disease I will denominate as "Cystitis." This disease may be caused by direct irritation to the vesical mucous membrane, such, for instance, as strong irritating and unskilful administered injections in the treatment of gonorrhœa, stricture, gleet, etc. Frequently rude catheterization, foreign bodies, especially calculi, give rise to this disease.

The admixture of acrid substances in the urine, or the formation of irritating matter in the bladder, caused from decomposition of urine, all of which may give rise to most distressing and intense forms of catarrhal cysritis. This class of vesical catarrhs frequently induced by the unwise use of catheters, sounds and drastic purgative drugs of various kinds, such as aloes and scamony. The balsam of copaibal, spts. and oil of turpentine in excessive doses. To cantharides, and many other so-called urinary

* Read before the Charlotte Medical Society, February 18, 1902.

specifics, such as are frequently given by the unwise and medlesome empiric, or drug clerk who contents himself in gratuitous prescribing for the patient who desires the rehabilitation of waning nature brought about by vicious excesses, bad habits, etc., and desires an aphrodisiac to recuperate the loss of manhood, etc. It also has its origin in certain spinal diseases, stricture of the urethra, enlargement of the prostate glands in old men, and in fact in any condition of acute character that interferes with the frequent and complete evacuation of the bladder.

I have known acute cystitis set up by the drinking of new beer made from hops, a fact well known and spoken of by almost all modern writers upon this subject.

Chilling of the skin, especially the feet and abdomen, not unfrequently results in catarrh of the bladder. A catarrhal cystitis is frequently a symptom of carcomatous growths and other grave disorders of the bladder. I will speak briefly of the anatomical appearance of the disease.

In acute cases the mucous membrane of the bladder is reddened, swollen and relaxed. The surface is covered with mucus, mixed with detached epithelium pavement cells in variable quantities. In chronic catarrh of the bladder this redness of the mucus surface fade and the color becomes a dirty gray.

The mucous membrane does not differ from the acute form in the matter of being swollen and thickened. The sub-mucus tissues and muscular fibres themselves are thickened and hypertrophied. Upon the inner side of the viscus lies a gray puriform mucus or yellowish purulent secretion.

The urine contained in the bladder is often decomposed, is of an acrid ammoniacal odor and of an alkaline reaction.

Chronic catarrhal cystitis rarely terminates in recovery. More frequently as the disease advances the proliferation of cells upon the free surface of the bladder takes place and is complicated with a vast growth in the mucous, sub-mucous and muscular coats. In this way catarrhal mucous ulcers, and sub-mucous abscesses,are formed. The walls of the bladder become thickened like a hollow india rubber ball.

Perforation of the walls of the bladder sometimes take place and the urine and other products of inflammation are discharged either externally into the rectum antrium vagina or sometimes it takes an unfavorable course into the peritoneal cavity. Sometimes a diffuse suppuration occurs in the neighboring tissues surrounding the bladder. This, however, is not a frequent ending of the disease. But when it does occur it is usually caused from the corroding effects of the decomposing urine upon the coats of the softened and diseased mucous membrane and subjacent bladder tissues. The mucous membrane in such cases as those said before is found to be extremely soft discolored and of brownish-red or blackish hue.

It is covered with a dirty exudation or broken down into a ragged patulous substance infiltrated with fetid pus. The sub-mucous and inter-muscular fasiculi are of a pale color and tear easily. The sub-mucous and inter-muscular tissue is infiltrated with ichorous matter within the bladder. There is a blackish brown chocolate like liquid of an intense ammoniacal odor, consisting of urine, pus, blood, and shreds of disintergrating mucous membrane. In the worst cases the destruction of all the coats of the bladder take place and the contents of that viscus escape into the abdominal cavity, causing death. Enormous thickening of the walls of the bladder, as I have already alluded to, take place. Sometimes a common result of the hypertrophy of the muscular coat and fasiculi may be mentioned as a third termination of chronic vesical catarrh. This condition arises in cases of long standing, such as are caused from impediment in voiding of the urine, &c. In such cases the walls of the bladder become thickened from proliferation of the stimulated cell-growth and formulation until it becomes from several lines to half an inch or more in thickness. The muscular fasiculi becomes so well developed in these instances until they form rib-like formations projecting into the interior of the bladder, giving somewhat the appearance of the right side of the heart (or right ventricle). The capacity of the bladder is more or less compromised in consequence of this development caused from the hypertrophy of the bladder walls. In the eccentric form of the abnormal development the bladder may rise up in the abdomen even as high as the umbilicus. In the concentric development of the bladder that viscus may be reduced to the size of a common walnut or ordinary orange. In some cases of vesical catarrh, especially when associated with impediment to the exit of urine, the mucous membrane presses assunder the muscular fasiculi and is forced in between them forming diverticuli or small pouch-like formations. At first small and round and later into larger pouch-like formations into which stones or calculi find their way and become encapsulated, and other forms of detritous refuse find their way into these pouches, and become a source of irritation

and give rise to a chronic catarrhal condition of the bladder walls.

The symptoms of acute catarrh of the bladder is sometimes accompanied with the usual febrile symptoms that accompany acute inflammation of other parts of the urinary track. As a rule, however, there is neither elevation of temperature or acceleration of the pulse. In recent cases the patient complains of undefined pain in the hypogastric region and perineum. The pain usually ranges from the kidneys down the course of the ureters, bladder and urethra to the glands penis. In severe cases of vesical catarrh pressure exerted upon the region of the bladder gives rise to pain. The congested and irritable vesical mucous membrane evinces the utmost intollerance to the contents of the bladder. The collection of a few drops of urine in the bladder occasions the most urgent desire to micturition. The sphincter vesicae is constantly in a state of spasm causing vesical tenesmus resembling in distress that which is caused by rectal tenesmus in catarrh of that viscus. The patient in such instances is constantly employed in effort to void his urine and in fact has the urinal constantly in his hand for micturating purposes. The few drops of urine that are frequently voided in spurts, cause a sharp burning sensation almost resembling in the immagination the passing along the uretra, molten lead or scalding water, and the bladder at times feels a sensation of scalding, especially upon the changing of the position of the body.

In all recent catarrhs the quantity of mucus formed is scanty, so that but a few flocculi are scattered through the urine. Later on the urine passed becomes turbid, filled with mucus sediment in a greater or less degree. The disease may run its course and get well in a few days and that form caused from drinking fresh beer usually passes off in a few hours. Some times the spasm of the sphincter vesicæ, which occurs in vesical catarrh, gives rise to complete retention of urine, and in old persons owing to supervening changes incident to old age, such as œdema, and fatty degeneration of the muscles of the bladder. A "myopathic palsy of the detrusors," arises which also causes retention. It is this circumstance which renders simple vesical catarrh a dangerous disease to old persons.

In chronic catarrh of the bladder the pain usually abates after awhile, but the intolerance of the viscus against its contents, and the constant inclination to urinate continue. The quantity of mucus increases considerably. At first a somewhat transparent stratum of mucus sinks to the bottom of the vessel. Afterwards the urine becomes thick, and turbid and its sediment is more or less opaque, and of a white or yellow color. If the urine undergoes the so-called alkaline change or fermentation in the bladder the secretion of the diseased mucous membrane becomes full of pus-cells and disintegrating epithelium suffers a peculiar transformation forming a gelatinous coherent mass, which, when poured from one vessel to another, holds together and can be drawn into long shreds. This profuse mucus secretion has been thought by some writers to give rise to alkaline fermentation. The urine is decomposed into carbonate of ammonia and that new ammoniacal combination are formed, namely, urate of ammonia, also phosphate of ammonia (triple phosphates). It is not always certain that the mucus contained in the uine gives rise to the fermentation, and it has been observed that in many cases of protracted catarrh of the bladder that the urine has been found to be of an acid reaction. It is maintained by the more modern writers that the fermentation of the urine while in the bladder is produced by microorganism of a low grade that find their way thither by the introduction into the bladder by dirty and filthy catheters and other unsterilized urethral instruments used in operation for the relief of the bladder and urethra.

Chronic vesical catarrh drags on for weeks, months and even years. It is a remarkable fact, and one difficult to explain, that the disease is usually accompanied with loss of apetite and by a general derangement of the digestive apparatus. The longer the disease lasts so much the less chances for a perfect recovery. Ulceration of the vesical mucous membrane is to be suspected when the sediment of the urine grows more and more purulent, when from time to time blood is discharged with the urine, and when a slow fever arises very likely caused from absorption of the purulent matter pent up in the little pouch-like diverticuli and atonic bladder. This fever rapidly and ultimately saps the strength of the patient unless proper treatment reaches out and overcomes the disease.

In such cases the patient frequently dies of this "vesical phthisis," so to speak. It is peculiarly fatal in those cases associated with abscesses about the bladder or in those cases associated with tedious suppuration from fistulous passages. When catarrhal inflammation of the bladder passes over into diffuse suppuration the patient becomes collapsed. In his countenance he appears sunken, the pulse is small and thready, skin cold. The urine is discolored, of a

brownish or blackish hue, contains shreds of mucous membranes, and exhales a fetid odor, even though the wall of the bladder be not completely destroyed, and though there be no escape of its contents into the abdominal cavity. Yet malignant peritonitis soon supervenes and the patient succumbs to death in a few days of general prostration. Thickening of the walls of the bladder from hypertrophy of its muscular fasciculi may be determined by the appearance above the symphisis pubis of a firm tumor which sometimes extends as high up as the navel or even higher, and when observed in the female often gives rise to and is apt to be mistaken for a distended womb. The patients so afflicted are generally unable to empty the bladder thus thickened. It is only the excess of urine that is passed by the voluntary act of the patient or which runs from him involuntarily. If the sphincter be palsied thus it may happen a normal amount of urine may be passed within the 24 hours. He may pass a normal amount of urine from his bladder and yet retain in the atony-stricken viscus from 2 to 6 ounces or even more stagnant urine every 6 or 8 hours, which can only be removed by the use of the catheter.

The treatment is of two or more kinds, medical and surgical, each in its turn is often attended by wonderful reliefs. If the cystitis has been produced by the cantharides or other drugs producing the disease the simple discontinuance of the irritating drugs will remedy the disease. Rest in bed should be enjoined. The administration of fluid foods such as milk, broths, predigested prepared foods, &c., are to be advised. The acrid nature of the urine can be remedied by the administration of boracic acid. liquor potassi, the citrates of potash and soda in conjunction with saline cathartics. The resort to suppositories containing the different preparations of opium as well as the sedatives of hyoscyamine, conium, belladonna, bromides of soda and potash have been attended by good results alleviating the pain, distress and tormina attendant upon the vesical tenesmus that is so constantly attendant upon the disease. Triticum Repens (couch or fluid extract dog grass) in teaspoonful doses administered every 3 or 4 hours has been attended with good results. Sitz baths, simple and medicated, administered as warm as can be borne for 10 or 15 minutes, are often attended by signal relief to the sufferer. They frequently relieve the scalding sensation that frequently attends acute catarrhal cystitis. As I have just indicated above, it is best to use saline cathartics to keep the bowels open, as they subserve another purpose ; they reduce the ardor of the urine, especially when taken in conjunction with such alkaline diuretics as liquor potassi, &c. In old worn-out cases the administration of strychnia and tonics should always be kept to the foreground in the treatment of the exhausted condition incident upon the chronic forms of cystitis. Properly applied, electro-therapy, in my opinion, might in the proper hands do much to restore the diseased organ to tolerance if not to recovery, and in conjunction with the cystoscope bids fair to do much in properly diagnosing as well as treating of this distressing disease to the old and feeble. The administration of mucilaginous drinks do good.

Such as flax-seed tea, mucilages of both accaciae, and tragaconth. Decoctions and infusions of Uva-ursæ and Buchu leaves are doubtless at times administered with benefit to the patient. There are scores of such medicines used as Balsam copaibæ, cubebs, oil of sandalwood, comp. tr. benzoin, with many other demulcents and blennorrhetics. And it is probable many of them subserve a profitable purpose in certain cases of the disease.

The surgical treatment consist in washing out the bladder with a double canula metal catheter and fountain syringe, using for that purpose sterilized water, some times distilled water with salt in normal proportions, which subserve the purpose of bringing away the detritus [decomposing urine, &c. ; and also subserve the purpose of gentally stimulating the weakened mucous membrane, and hurries on the reparative process. A great many antiseptics, and disinfectants are used in varying strengths in water and other solutions for the cleansing out of the bladder. Some of them I will mention : Corrosive sublimate, carbolic acid, permanganate of potash, creoline, nitrate of silver, boracic acid, and many others too numerous to mention. The one that I have used with perhaps the gretest amount of benefit, is the old and ancient nitrate of silver in, say, from $\frac{1}{4}$ to $\frac{1}{2}$ of a 1 per cent. solution. God forbid that I should ever use even in the most attenuated solution of that king of kings, (corrosive sublimate) as an antiseptics. I do not consider it a safe injection into the bladder at even the attenuation of 1-30,000 solution, let alone the proportions laid down in the text books at from 1-15 to 20,000 solution.

I advise you, my brother physicians, to abstain from its internal use into any of the hollow visci of the human body.

In the chronic form of this disease and that which most frequently afflicts the aged (especially old men) the best surgicul expe-

rience in my hands and that which has been fruitful of good results is the teaching of my patients how to keep the soft India-rubber catheters, which are best for their use, clean and the art of gently introducing the same into their bladder. The catheter should be introduced every 8 or 12 hours, in order to drain away the residuary urine left after the voluntary act of micturition. This, of course is done to drain the bladder completely of such urine which if left, would become fermented with its attendant bad results. In cases where it is impossible to catheterize, the patient I puncture the bladder with a No. 8 trocar just above the pubis in the median line while the bladder is well distended and the peritoneal covering is well drawn up, thus avoiding the wounding of said membrane, which can be easily avoided by proper care. It causes no shock whatever, and the beauty of the procedure is that it can be easily performed by an ordinarily careful physician or surgeon with perfect safety and, as I claim, will greatly reduce the mortality brought about by either the much vaunted operations of perioneal section or superpubic cystotomy, either of which are dangerous with the aged and infirm. After leaving the canula in the abdomen for 36 to 48 hours, I pass a No. 8 soft catheter into the bladder through the canula by the means of a wire and slip the canula out over the Indiarubber soft catheter, and take a piece of plaster, cut a hole in same, pass over the end of catheter and pin with a safety-pin through the cortical edge of catheter to retain it in situ. These cases of course embrace those cases of enlarged prostate gland together with those attended with paresis, or atony of the bladder walls, in which the detrusor urinae muscles are involved. It may be of some interest to say that by this means I, in company with two of my brother physicians, Drs. Henderson and McLaughlin, of this county, have been enabled to snatch two patients from the very jaws of death.

Puerperal Convulsions as Seen by a Country Practitioner, with Report of Cases.*

By W. T. Griggs, M. D., Poplar Branch, N. C.

Introduction.—I wish to say, in the outset, that in presenting to this honorable association this much written about but little understood subject, I have nothing new to offer, but hope that the discussion of this paper may elicit truths which will be beneficial to the entire association.

What more appaling sight can the imagination conceive of than that of a pregnant woman in convulsions? The swollen limbs, livid face, rent garments, disheveled hair, bitten and swollen tongue, with froth and blood oozing from mouth, and the anxious friends and spectators all betoken that something serious has taken place in the mechanism of the human machinery. The functions of one or more organs have been perverted.

Definition.—By the term puerperal convulsions is meant an acute morbid condition, occurring during pregnancy, labor or puerperal state, which is characterized by a series of tonic and clonic convulsions affecting first the voluntary, then the involuntary muscles, accompanied by complete loss of consciousness and ending in coma.

Frequency and Prognosis.— Puerperal convulsions are most frequent in the later months of pregnancy, less frequent in labor, and least frequent in the puerperium. Puerperal convulsions occur once in 250 to 300 pregnancies, and when we remember that the maternal mortality is from 25 to 35 per cent., and the fœtal mortality 50 per cent., we should bestir ourselves to learn the cause and find a preventive.

Etiology.—The cause of eclampsia is still shrouded in obscurity. Several theories as to cause have been advanced, the most plausible of which is the failure of the emunctories of the body to eliminate the poisons from the system. The poison continues to accumulate, and irritate the nervous system until finally it culminates in convulsions. The symptoms of eclampsia resemble those produced by poisons circulating in the blood.

CAUSES: { 1. PREDISPOSING. 2. EXCITING.

Predisposing Causes.—1st. All forms of nephritis. 2d. Pressure of gravid uterus as in twin pregnancies, or abnormally large fœtal head may interfere with elimination by causing constipation and partial or complete suppression of urine. 3d. Small pelvis. 4th. Rigid muscles.

Exciting Causes.—1st. Sharp cutting pains. 2d. Suppression of urine. 3d. Prolonged second stage. 4th. Emotional disturbances. 5th. Hyper-sensitive nervous system may be mentioned as existing causes. Once established a slight jar or noise may cause subsequent attacks.

SYMPTOMS: { PREMONITORY. DEVELOPED ATTACK.

Premonitory.— Premonitory symptoms are headache, dizziness, defective vision,

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loss of appetite, scant output of urine, œdema of face and lower limbs.

Developed Attack.—Developed attack divides itself into three stages. The first two stages last about two minutes. The first stage, or that of invasion, is characterized by convulsive jerks of muscles of face which becomes cyanotic and the eyeballs are rolled up. In the second stage, or that of tonic or clonic convulsions, the arms are extended and rigid, with the thumbs closed in the hands, the tongue is partially protruded and bitten. There is complete loss of sensation and consciousness and the patient passes into the third stage or that of coma, which lasts about half an hour, during which the patient sleeps and wakes to ask what has happened, and to have another convulsion in a short while.

TREATMENT: { PROPHYLACTIC. / CURATIVE.

Prophylactic.— Prophylactic treatment consists in: 1st. Frequent examinations of urine for albumin, amount of urea, etc. 2d. Keep patient on proper diet, which in extreme cases should consist exclusively of skimmed milk, thereby reducing to a minimum the amount of nitrogenous food. 3d. Limit as far as possible the production and absorption of toxic materials in the system and assist in their elimination by stimulating to normal activity all the emunctories of the body; (a) by keeping bowels regular by daily doses of cascara or colocynth and aloes; (b) by increasing activity of kidneys by glonoin, lithia water, etc.; (c) by stimulating sluggish liver by taking small doses of calomel and soda followed by a saline; (d) the action of the skin is encouraged by warm flannel underwear, daily warm bath, or hot pack or vapor bath, according to the urgency of the case. In addition to stimulating the emunctories of the system the patient should be encouraged to take plenty of fresh air and sunshine. If anemic some form of iron should be prescribed. If there is headache or nervousness an occasional dose of bromide of soda should be prescribed. If all other remedies fail to give satisfactory results, as a last resort empty the uterus, thereby removing the source of fœtal metabolism and peripheral irritation.

Treatment of Developed Attack—Owing to the obscurity of the pathology of eclampsia there can be no rational curative treatment of developed attack; but in the presence of such an attack the indications are to:

1st. Control the convulsions; 2nd. empty the uterus; 3rd. eliminate the poisons which in all probability are causing the convulsions. The above indications are evident in every case of eclampsia, but perhaps, every obstetrician has his own method of fulfilling them. While we speak of each indication under a separate head, in actual practice, we do not wait for any one to be fulfilled before we commence on another, but work on all three at the same time, each aiding the other two.

Medicinal Remedies.—To control the convulsions many medicinal remedies are offered, the most efficient of which are: 1st, Veratrum viride, chloroform, morphine, chloral hydrate either alone or combined with bromides.

Veratrum Viride.—Veratrum viride is the drug par excellence in the treatment of puerperal convulsions. Take five drops of Norwood's tincture hypodermically every half hour till pulse falls to 65 or 60. A woman cannot have a convulsion with a pulse of 65. Veratrum not only controls the convulsions, but relaxes the spasmodic contractions of the os uteri, and increases diaphoresis and diuresis, thereby aiding in fulfilling the other two indications. Vomiting or collapse, should they ensue, are readily controlled by hypodermic injections of brandy or morphine. The patient at all times should be kept absolutely quiet and in recumbent position.

Chloroform.—Chloroform is invaluable as an adjuvant in the treatment of developed attack until more efficient remedies can take effect. It can be administered in all stages of the attack.

Morphine.—Morphine has a marked sedative effect, quieting the nervous system and relieving all pain and nausea. Some objection to its use may be raised as its tendency is to lock every secretion in the system except sweat, thereby interfering slightly with elimination. After a subcutaneous injection of gr. $\frac{1}{4}$ to $\frac{1}{2}$ morphine, patient usually falls asleep and perspires freely.

Chloral and Bromides.—Chloral and bromides cause a deep sleep but the patient usually wakes to have another convulsion.

Empty Uteri.—To fulfill the second indication, viz; that of emptying the uterus there are many methods in vogue. 1st. The expectant method in which we wait for the os to dilate and the labor to terminate naturally, means danger to the mother and almost certain death to the child, on the other hand, the child is saved and the mother is practically safe as far as eclampsia is concerned if uterus is emptied by some appropriate surgical means; 2nd method is caesarian section, but this method, except in anomalies of the pelvis or fœtus incurs too great a danger and puts the patient in the way of many complications

to be resorted to. A third method is deep cervical incision which admits of rapid delivery; but the fourth method, that of mechanical dilatation of cervix and delivery by forceps, is the safest and most successful of all the methods for the country practitioner. The finger is perhaps one of the best and safest dilators; the ordinary cervical dilator or tampon may be used.

Eliminate Poisons.—In fulfilling the third indication, viz; that of eliminating the poisons from the system; we must not rely on any one emunctory, but must set them all actively to work. The alimentary tract must be emptied as soon as possible by a dose of calomel and jalap followed by croton oil or magnesium sulphate and high rectal enemata to empty lower bowels. Diuresis is obtained by small doses of glonoin, which also reduces arterial tension; by hot fomentations over the kidneys, and by copious rectal injections of warm saline solution which is rapidly absorbed and helps to wash out the kidneys. Diaphoresis is increased by hot air bath or hot pack and drugs previously mentioned.

Venesection is resorted to with profit in a plethoric patient with a high bounding pulse.

Contrast of Specialist in City and Country Practitioner.—The city physician or specialist has many advantages over the country practitioner, especially in the treatment of eclampsia. He has the advantages of the telephone, telegraph, electric car, auto-mobile, and various other things too numerous to mention. He also has access to hospitals and sanitariams and all modern implements and appliances. He has at his command trained nurses and a host of colleagues, any of whom he can call to share the responsibility in the case and thereby lighten the burden on his own shoulders.

The pregnant woman in the city, if one of means, usually consults a doctor, or if one of no means or limited means frequents the clinic or free dispensary or hospital. So some doctor or medical student has his eye on the patient giving her the advantages of prophylactic treatment if there is any indication, for the same, and always ready to respond promptly in case of eclampsia.

On the other hand, the country practitioner has to be sent for by a messenger who, oftentimes, is slow and indifferent, causing a long lapse of time before the doctor gets the message. He in turn has to hitch his horse (perhaps jaded) and drive to the patient, whom he perhaps finds accompanied by an old midwife, who is generally the filthiest and most ignorant woman in the community. She really hasn't the sense to put a spoon or anything else between the patient's teeth to prevent her chewing her tongue into mince-meat. Still this medicaster, this walking mass of filth and infection, has been the sole medical adviser of this woman for the past nine months, during which time she has run the whole list of garden herbs and nostrums. The headache, blind spells, œdema of limbs and face which symptoms finally terminate in convulsions have gone untreated. When, perhaps, if the woman had consulted a physician she would have saved herself an untold amount of suffering at least, or in extreme cases her life or that of her child. When the doctor arrives and finds the patient in convulsions he goes to work with all his might. He calls for hot water, but there is none (I suppose they think he is in hot water enough). He calls for someone to give the patient a whiff of chloroform, while he prepares medicine for hypodermic injection, but he cannot find any one. The members of the family are terror-stricken and the old midwife does not know anything except to pull on the patient's hands with all her might during pains, which always makes her very sore. In such a case the doctor has to fight the battle single-handed and alone, his nearest medical neighbor being several miles away. This is the way we frequently (not always) find it in the country, while our city brethren have a plenty of help and all modern conveniencies. So if our mortality in the country is high, pray excuse us under the circumstances.

Report of Cases. Case No. 1.—Mrs. A., multipara, age 45 years, very stout, weighing about two hundred pounds, seventh child, previous labors normal, health good during this pregnancy, menses regular between pregnancies, did not consult any doctor during this pregnancy, and had no doctor in previous labors except in first, which was twenty-five years prior to this, always getting along with ordinary midwife, labor commenced about 6 p. m; sent for old colored midwife who arrived about 7 p. m. The midwife soon complained to the husband of Mrs. A. of her being more nervous than in previous labors, upon which he sent for me. I arrived about 11 o'clock p. m., found Mrs. A. very nervous and tremulous, pulse rapid and weak. She complained of headache and burning sensations, upon examination found her in second stage of labor, head engaging, bag waters having ruptured, I commenced to give chloroform enough to deaden sensation, labor progressed normally, each pain having a telling effect. At 12:30 o'clock (one and half hours after my arrival) she gave birth to a large boy, after-

birth followed in a short while. She was so completely anæsthetized that she did not know when it was born; but in a few minutes, upon being called, said she was feeling better, pulse about 75 and stronger. Patient seemed to be drowsy, so we dressed her and the baby, and I retired about two o'clock thinking to get some sleep. The midwife and husband said she seemed to rest well until four o'clock, when she woke and said she wanted to urinate. They allowed her to get up and she passed water. She complained of headache and pecular feeling and by the time she lay her head on the pillow was seized by a convulsion. The husband ran into an adjoining room and woke me. Before I could get to the patient she had a second convulsion. I wrapped a cloth around a spoon and pushed her bitten, bleeding tongue from between her teeth and gave spoon to midwife to hold and I gave her chloroform till that convulsion was off. Her pulse was then 120 per minute. Flowing was profuse (so much so that I would not use the lancet).

Treatment.—Used veratrum-viride (Norwood's Tincture) in 7 minim doses hypodermically every hour till pulse fell to 60 per minute; used bromide potash and hydrate of chloral a.a. gr. xx in half pint of tepid water per rectum. She retained this and in half hour snored lustily. In one hour after using hypnotic per rectum used half gallon warm saline solution per rectum and repeated this every two hours (using hot compress against anus for half hour after each injection of saline solution) until bladder moved freely; gave calomel and soda a.a. gr. x per mouth followed in three hours by two minims of croton oil in tablespoonful of glycerine which gave copious evacuations of bowels. While bowels were acting patient roused up and said she had headache. I gave her morphine g.1-2, atropine gr. 1-150, hypodermically, after which patient soon went to sleep again. I left in afternoon and directed the nurse to watch the patient and give dose veratrum if pulse went above 90 per minute and give chloroform if another convulsion occurred. I visited patient next day and found her getting along nicely. There had been no recurrence of convulsions; headache had disappeared and there remained no symptoms of convulsions; ordered bowels kept open by magnesium sulphate; patient recovered without further trouble.

Case No. 2.—Mrs. B., multipara, third child, ninth month of pregnancy, age 21 years; roused the family about midnight by falling in the floor with a convulsion; sent for midwife and she sent for me. I got there next day; convulsions rapid; on examination found os dilated the size of half dollar; bag waters forming; pulse 126; face swollen and cyanosed; bowels constipated; bladder inactive; skin hot and dry; patient had been unconscious for about 12 hours.

Treatment.—Chloroform during attacks. Abstracted about four ounces blood. I gave hypodermic mophine and atropine to quiet stomach and control restlessness: five minims veratum viride (Norwood's tincture) hypodermically every half hour till pulse fell to 60; three doses sufficed; Calomel gr. x. well back on tongue; half gallon hot water per rectum every half hour. Bladder moved freely after second injection of hot water; two hours after the calomel, gave two minims croton oil in tablespoonful glycerine which was soon followed by copious evacuations from bowels. When bowels began to act, pains became quite strong and labor progressed satisfactorily. In about 2½ hours after pains began a small girl baby was delivered which lived and grew nicely. The woman made a good recovery without further convulsions.

Case No. 3. Mrs C., Primipara, age 28 years, fifth month of pregnancy was siezed by a convulsion while attending to her work in the kitchen. Her regular physician being out of reach, they sent for me. I had to cross a river and drive then 20 miles, arriving about 20 hours after the first convulsion, Os tightly contracted. Patient anæmic, pulse rapid and weak, bowels constipated. Bladder inactive, bronchitis, moist rales in tubes.

Treatment:—Gave Hyp. of morphine and atropine to control restlessness. Convulsions continued rapid. Gave veratrum per mouth, which soon caused nausea and vomiting. Vomiting cleared the phlegm out of bronchial tubes. The veratrum soon slowed pulse and convulsions ceased. Gave croton oil in glycerine, and copious injections of hot saline solution till bladder and bowels acted freely. On arrival of her family physician, we considered it unsafe to leave the child in the uterus. The os at this time was not so rigid. It would easily admit the index finger which was carried in a circular movement around its inner aspect (very little pressure being used) until pains set in. Pains went on regularly until a small fœtus about six months in utero was delivered which died in a very few minutes. This patient had a very severe attack of pneumonia from which she recovered after a long while.

Case 4. Was called in consultation by Dr. A. early in the morning.

History of Case.—He gave a history of case as follows: Mrs, D., age 25 years. Multipara, third child 7th month of preg-

nancy. Woke her husband about midnight, complained of severe headache, and told him to go for the doctor at once. Before he could get away she was seized by a convulsion. He ran for doctor, who lived about one-fourth of a mile away. The doctor was there in a very few minutes. Convulsions were very rapid. The patient was conscious between attacks. The doctor gave her 15 grains each of hydrate of chloral and bromide of potash per mouth. Patient had two convulsions after first dose then fell asleep and slept for two hours. When she woke she said she felt better and called for water, which was given her. Before she finished drinking the water she was seized by another convulsion. The doctor repeated the dose of chloral and bromide, which again slept her for two hours. After which another convulsion and medicine repeated. He found the os contracted tightly. He called me in consultation. As she was a plethoric woman I suggested the lancet, which was used but could not get any blood worth speaking of. After blood-letting failed we used veratrum viride (Norwood's) minims, five hypodermically every hour 'till pulse fell to 65 per minute, and there was nausea and vomiting. Gave Hyp. of morphine and atropine to allay nausea and quiet patient. Gave croton oil in glycerine, and used injections of hot water per rectum often, until bowels and bladder acted freely. Patient rested well until about 10 o'clock at night, when we dilated the os slightly, and she began to have labor pains. I then left her in the hands of Dr. A.,who said labor progressed very nicely without convulsions. A dead fœtus was finally expelled; after which the woman lived about one hour.

What was the cause of her death?

Urinary Analysis, Diagnosis and Prognosis by the Microscope.*

By W. H. Prioleau, M.D., Asheville, N. C.

The subject of urinalysis is of as deep interest to the general practitioner as to the genito-urinary surgeon. The chemical examination is of inestimable value and should be so considered; but no urinalysis is complete unless both chemical and microscopical examinations have been made. Occasionally it so happens that a chemical analysis is negative and that a diagnosis can be made only by the microscope. It was such a case, coming under my observation recently, that caused me to select Microscopic Urinalysis for my subject; and right here I want to emphasize the fact that this paper deals only with the microscopic examination of urine.

While examining an applicant for life insurance, the usual question being asked as to whether he had ever had any kidney or bladder disease, the answer was given that he thought so, but no one had told him positively that he had. His urine had been examined chemically by two physicians, both of whom said that the trouble "was due either to too much or too little acid, they could not tell which." The only symptom of which the man complained was getting up *once every night* to urinate. This had been going on for three years. The applicant passed a specimen for me and I examined it chemically; the analysis was negative; but when the microscope was used the disease was readily recognized. The urinary deposit contained a few pus corpuscles, epithelia from the neck of the bladder, and from the prostate gland with endogenous new formations, showing that the irritation at the neck of the bladder was due to an enlarged prostate. The uric acid was normal in quantity.

Urine.—To examine urine it should be collected for twenty-four hours and a specimen taken from the total amount. If impossible to get all the urine passed during the twenty-four hours take the first passed in the morning. This is put into a conical glass vessel, or graduate, and allowed to settle. After six to twelve hours the supernatant fluid is poured off and the deposit placed in a watch-glass. This sedement is transferred from the watch-glass to a slide by means of a small pipette, or camel's hair-brush, and a cover glass gently put on. Urine should be examined as early as possible after sedimentation, because if delayed bacteria develop in great numbers and destroy the epithelia. The centrifuge is valuable when immediate examination is desired. Unless this is the case I prefer it to settle from six to twelve hours. The epithelia from the genito-urinary tract are so delicate that the force of the centrifuge sometimes injures or breaks them. On the other hand, when looking for gonococci or tubercle bacilli the centrifuge is invaluable. Casts and salts are affected in no appreciable way by the centrifuge, except that the massing together of the deposit may give you a wrong idea of the severity of the disease. Mucus thrown down by the centrifuge may take on the form of cylindroids and be mistaken for hyaline casts.

Microscope.—A moderate magnifying power of about five hundred diameters is

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needed for all deposits except bacteria. This can be obtained by using a one-sixth lens and one-inch eye-piece. It is advisable to accustom oneself to a certain magnifying power, say 500, and always use it, changing the power is confusing. For bacteria, a one-twelfth oil immersion lens, one-inch eye-piece and Abbe condenser are necessary. One should never use the Abbe condenser with the one-sixth lens because it gives too much light.

As regards light, one must regulate that for himself. Too much light interferes with definition. I prefer the least amount of light which produces a good definition. As cases calling for bacteriological examination of urine are rare, a physician having only the one-sixth lens, one-inch eye-piece and a good stand can do excellent urinary work with much pleasure to himself and benefit to his patient. Such an instrument is not expensive and new lenses can be obtained when needed if the continental screw is used. A good stand is necessary and should always be looked for when purchasing.

Urinary Deposits.—There is a deposit to all urine if it be allowed to settle. In normal urine the deposit consists of mucus, detritus and superficial epithelia from the genito urinary tract. In pathological urine the deposit may contain—

1. Acids and salts.
2. Epithelia.
3. Casts.
4. Tumors.
5. Extraneous matters, and
6. Bacteria.

Acids and Salts.—Under this heading we have uric acid, urates of soda, potash and ammonia, complete and incomplete phoshates, oxalate of lime, etc. Uric acid and the urates are most important clinically, for when in excess they produce the condition known as "Lithæmia," whose symptoms, such as headache, malaise, dyspepsia, mental depression, etc., are too well known to dwell upon. Uric acid crystals may be recognized by their color, which is either yellow or orange. They are never colorless; the clay water sediment found in the chamber is urate of soda. It is the effete product of oxidation and comes from overeating, dyspepsia, etc. Under the microscope it appears as yellowish or brown granules, in moss-like arrangement.

Oxalate of lime in excess in the body is called Oxaluria. I have seen irritation of the kidneys, due to oxalate of lime crystals, readily subside when the acid fruits and vegetables were removed from the patient's diet list. Oxalate of lime under the microscope appears in a variety of shapes and sizes, but is always colorless. Phosphaturia denotes an excess of phosphates in the urine. The symptoms of Oxaluria and Phosphaturia are similar to those of Lithæmia. The other salts found in the urine microscopically are less important than the foregoing and need not be metioned in this paper.

Blood corpuscles, or hæmatoidin crystals, found in the urine denote hemorrhage somewhere along the genito-urinary tract. The exact location can only be determined by the epithelia found accompanying them. Red blood corpuscles under the microscope are yellowish at first but soon lose all color; also they vary in size, but can always be recognized by having a double ring. They are very small, being about one-half the size of a pus corpuscle; hæmatoidin crystals are of various shapes, but usually like needles. They are reddish or rust-brown in color.

Pus corpuscles found in the urine denote inflammation or suppuration somewhere. A pus corpuscle is the smallest cell present in the urinary deposit, except the red blood corpuscle and occasionally small epithelia from the convoluted tubules of the kidney, and is the standard for the measurement of the epithelia. In making an examination, first find the pus corpuscles, and after they have been located the rest of the work is comparatively easy; according to the number of pus corpuscles in the urine is the activity of the disease.

In 1879 Carl Heitzmann claimed that he could tell a patient's constitution by the granulation of the pus corpuscles in his urine. According to him the more coarsely granular and higly refractive the pus corpuscles are the better the constitution; and vice versa, the more finely granular the poorer the constitution; when the pus corpuscles show one or more neuclei the constitution is poor. My experience has been limited, but what little I have had proves Heitzmann's theory to be correct. Pus corpuscles containing fat granules or globules denote chronicity. In acute inflammations fat granules are never found in pus corpuscles. Pus corpuscles are found not infrequently in epithelial cells and when so found are called endogenous new formations. They denote a new formation somewhere due to pressure or continued irritation.

Epithelia.—The question of the location of the different epithelia found in the urine is still unsettled. The importance of being able to say where the different cells come from is recognized by all.

Ogden, in his work says, "The recogni-

tion of the (epithelial) cells from the various parts of the urinary passage is of the greatest importance, for it is often only by this means that abnormal processes can be located."

Valentine, speaking of diagnosis by the epithelia says, "Fantastic as this is asserted to be, I have almost daily evidence of the parallelism between microscopical and clinical diagnosis, and always find it a decided aid."

French, in his article in the Twentieth Century, Volume VII says, "No one can tell with precision where the epithelia come from," but later on in the same article remarks, "In acute congestion of the kidney and in acute parenchymatous or diffuse nephritis, especially in the scarlatinal form of the disease a large number of spheroidal epithelial cells, from the convoluted tubules, appear in the urine, most of the cells being normal in appearance."

For myself, I am convinced that with a little study one can locate the majority of the epithelia found in a urinary deposit. It is impossible to pick out just one cell and say where it comes from, but if there are many of them the task is not difficult. The diagnosis is made not from one cell, but from many. The epithelia found in the urinary tract of both sexes come from the urethra, bladder, ureters and kidneys. Besides, in the male you have epithelia from the ejaculatory duct, prostate gland, prostatic duct and seminal vesicles; in the female we have epithelia from the vagina, glands of Bartholini, cervix and mucosa uteri. Epithelia from the bladder may come from the superficial layer and be flat; from the middle layer and be cuboidal, or from the deep layer and be columnar. In the female the vagina epithelia are the largest; in the male those from the bladder. The standard for measuring the epithelia, as I said before, is the pus corpuscle. Epithelia from the convoluted tubules of the kidney are about one-third larger than the pus corpuscle and are cuboidal. Epithelia from the straight collecting tubules are about the size of those from the convoluted, but are columnar in shape. Epithelia from the pelvis of the kidney are about twice the size of the epithelia from the convoluted tubule, and are cuboidal, pear-shaped, or caudate. Usually they are irregular. They are smaller than the epithelia from the bladder. Epithelia from the ureters are round and in size are about twice that of the pus corpuscles but smaller than those of the pelvis. They cannot be differentiated from the epithelia of the prostate, except by the other epithelia in the field. For instance, if in the same field you found pelvis epithelia you would know they were from the ureter. Epithelia from the urethra of the male vary in size but are always smaller than the epithelia of the bladder. Like the bladder, there are three kinds—the flat, cuboidal, and columnar. As remarked previously, epithelia from the ureter and prostate are about the same size. The duct of the prostate has columnar epithelia and can be differentiated. Epithelia from the ejaculatory duct are of the columnar variety and ciliated. They resemble the epithelia from the deep layer of the bladder, but are smaller and have cilia. They are readily recognized when present. Epithelia from the vagina correspond to the epithelia from the bladder, except that they are much larger. Epithelia from the Bartholinian glands are of the same size and shape as those from the ureters. Epithelia from the cervix resemble the epithelia from the urethra and cannot be differentiated. The mucosa uteri is lined with epithelia of the columnar ciliated variety just like the ejaculatory duct of the prostate in the male. Other epithelia common to both sexes are the epidermal scales. They are flat and irregular and come from the prepuce and labia. The epithelia mentioned as found in the urine are valuable, first from a diagnostic standpoint. A few epithelia from the superficial layer of the bladder have no pathognomic value, but when there are many and when middle layer or cuboidal epithelia are found along with pus corpuscles the patient has cystitis.

The appearance of all three varieties of epithelia denotes a very severe destructive cystitis. In all inflammations you must have pus corpuscles, so for brevity sake, I shall not allude to them again. In urine containing many pelvic epithelia we readily diagnose pyelitis. When epithelia from the convoluted tubules appear we have a nephritis and when in the same urine we find epithelia from the straight collecting tubules we know we have a severe case of nephritis. Likewise through the whole list of the epithelia belonging to the genito-urinary tract.

Valentine, in speaking of diagnosing stricture says, "The urethral epithelia (in stricture) have among them some thinned scales with smooth or faint nuclei and some without neuclei. These variations prove that stricture is forming and persists as long as they are present."

By the epithela one is able to diagnose almost any disease of the bladder, kidney, urethra, prostate, seminal, vesicles, vagina, cervix or mucosa-uteri. The diagnosis being made, the prognosis is made from the same field or sediment.

Casts.—The casts found in the urine may

be hyaline, epithelial, granular, fatty and waxy. Also we may have blood casts. The cylindoid or mucus casts, is sometimes mistaken for the hyaline. It is a simple cast and does not come from disease.

The hyaline and epithelial casts are found in acute parenchymatous nephritis, but as the disease becomes chronic we have succeeding them the granular, fatty and waxy casts.

The blood cast is found in acute inflammation. Casts may be large or small according to the part of the uriniferous tubules from which they come or in which they are formed.

Tumors.—Tumors of the genito-urinary tract may be either benign or malignant. They can frequently be diagnosed from the urine. To make a positive diagnosis, besides other evidences of the tumor, you must have connective tissue. The connective tissue denoting the new formation that is taking place.

In *carcinoma* the cancer nests are found; also the connective tissue shreds are very large and have peculiar shapes.

In *sarcoma*, besides the connective tissue, you have the small round cells, smaller than the red blood corpuscle.

In *papilloma*, you have connective tissue shreds, large and branching. Sometimes they contain inflammatory corpuscles and are usually granular. Then, too, the epithelia covering the papilloma is of a peculiar appearance.

Always in the deposit, besides the evidences of the tumor, you have pus corpuscles, red blood corpuscles and epithelia belonging to the organ which is diseased.

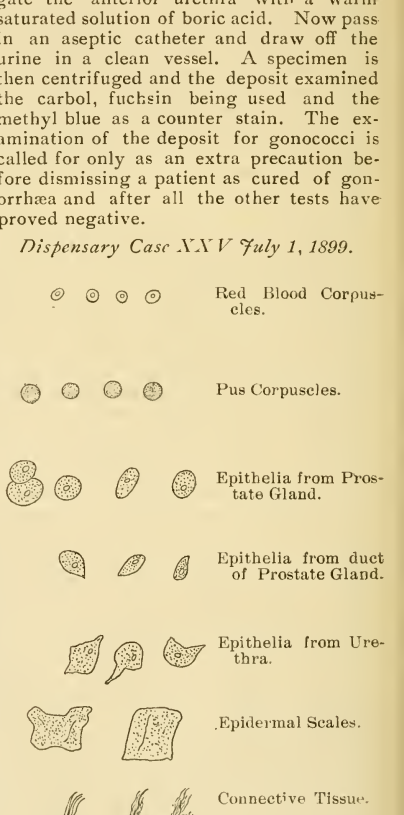
Connective Tissue.—Next in importance to the epithelia in the urine is connective tissue. Whenever you find it you may look for a new formation. It may be a tumor, ulceration, suppuration, or some other destructive disease. As a rule connective tissue is not recognized as such, and frequently is mistaken for mucus. Connective tissue is made up of irregular wavy fibres, coarsely granular and highly refractive. Mucus is recognized by its fine fibrillæ, running almost parallel lines and finely granular; also in the same field are mucus corpuscles. While mucus may be found in normal urine, connective tissue never is.

Spermatozoa found in urine may not indicate disease, but spermatozoa found along with epithelia from the ejaculatory duct denote seminal vesiculitis.

Bacteria.—The important bacteria found in the urine pathologically are the gonococcus and tubercle bacillus. These are stained according to regular methods. When accompanied by epithelia from any definite part of the genito-urinary tract an almost positive diagnosis of the affected part can be made.

The collecting of the urine for the staining of the tubercle bacillus is one which calls for especial mention. The smegma bacillus resembles the tubercle bacillus, and is also an acid resisting organism. To be quite sure that the urine does not contain smegma bacilli, the following plan is advised: Carefully wash the gland penis with a 1-6000 bichloide solution, then irrigate the anterior urethra with a warm saturated solution of boric acid. Now pass in an aseptic catheter and draw off the urine in a clean vessel. A specimen is then centrifuged and the deposit examined the carbol, fuchsin being used and the methyl blue as a counter stain. The examination of the deposit for gonococci is called for only as an extra precaution before dismissing a patient as cured of gonorrhœa and after all the other tests have proved negative.

Dispensary Case XXV July 1, 1899.



Diagnosis: Probable new growth (benign) in prostate gland and posterior urethra. X500.

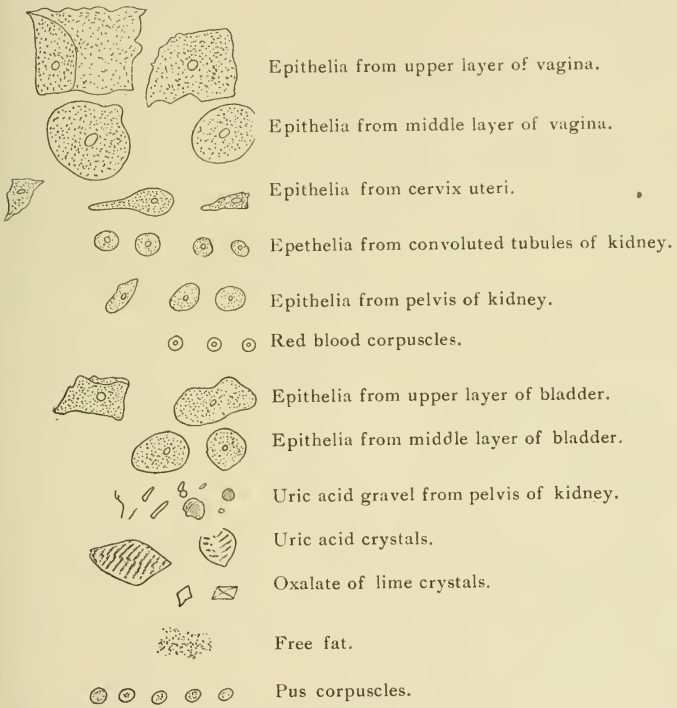
Urethrotomy (Posterior) showed white patch in posterior urethra.

Valentine—Irrigation Treatment of Gonorrhea.

Ogden—Clinical Examination of Urine.

French—Twentieth Century Practice. Vol. VII, Urine.

Case III, May 2d, 1899.



Epithelia from upper layer of vagina.

Epithelia from middle layer of vagina.

Epithelia from cervix uteri.

Epethelia from convoluted tubules of kidney.

Epithelia from pelvis of kidney.

Red blood corpuscles.

Epithelia from upper layer of bladder.

Epithelia from middle layer of bladder.

Uric acid gravel from pelvis of kidney.

Uric acid crystals.

Oxalate of lime crystals.

Free fat.

Pus corpuscles.

Diagnosis: Lithæmia, subacute catarrhal pyelo-nephritis, slight catarrhal eystitis; vaginitis and cervitis. X500.

The two cases above illustrated are inserted so that one can get a general idea as to the work done and the way to do it.

I regret that I cannot claim originality for this paper. Its contents are based on notes taken while a student at Heitzmann's Laboratory. Most of the facts mentioned I have been able to confirm in my own practice; and of still more value in the large genito-urinary practice of Valentine, with whom I had the honor of being associated.

BIBLIOGRAPHY.

Heitzmann—Uurinary Analysis and Diagnosis.

DISCUSSION.

Dr. Minor: The subject is one that is of great interest and we have all done more or less analysis, but when we hear such a careful paper as this and from one who has had such opportunities we feel our sins of omission in the past. For many years I tried to diagnose urinary conditions from an examination of the epithelia and feel rather ashamed of myself when I hear such a thorough exposition of the subject that I did not carry it any further than I did. I personally never have put the work in it that I should as I now realize after hearing

the doctor's paper and that it would have been possible for me to have reached diagnosis by this method had I studied it closely enough.

The remarks on pus corpuscles were distinctly instructive. I should like to see a further verification of the theory of the bearing of their granulations upon the health of the individual.

There is one point I should have liked to see the Doctor dwell upon more fully as regards the diagnosis of the tubercle bacilli in the urine.

The trouble I've found in the matter was to find some satisfactory manner of making urinary matter adhere to the cover glass.

As a general rule, during the fusin acidulous water and methylene blue baths the sediment is washed from the glass to which it has been impossible to satisfactorily attach it.

I would also refer to the difficulty in urinary settlement of getting a urine so free from contamination from the genitals that there shall be no smegma bacilli in it. The fact that this troublesome bacillus is morphologically indistinguishable from the tubercle bacillus and like this latter is resistent to a decolorizing solution makes it most desirable that we should get some method whereby we can recognize it from the tubercle bacilli. There is a little point that I would refer to that I have found of use where I was not able to examine urine deposits at once and desired to preserve them for further study, and this is the addition of chloroform, which preserves it almost uninjured and prevents the multiplication of bacteria which soon breaks up casts and ruins epithelia.

Dr. Morse: In regard to Dr. Prioleau's paper, which we have had the great pleasure of listening to this evening, I would like to call attention to one point and that is concerning the great difficulty, at least from the general practitioner's standpoint, of differentiating the cells from the different parts of the urinary tract. I think I can distinguish between the superficial cells of the bladder from those of the tubules of the kidney, but for the finer distinctions I don't possess a sufficient skill and experience.

From my own personal experience during my sickness and from clinical observation I wish to emphasize the necessity of combining microscopical findings with findings of the case. Of my own case, of which many of you know something, so good a man as Dr. Bryson, of St. Louis, thought my condition one of stone in the kidney, owing to the calcium oxylates and uric acid crystals. An operation only revealed the constricted and hydra-urita due to tuberculosis, no stone being found. A word in regard to tubercle bacilli; in my own case a few acid and alcohol resisting bacilli were found but from the scarcity of number it was impossible to make a diagnosis of genito-urinary tuberculosis. However, the inoculation of a couple of guinea pigs with the sediment confirmed the suspicion as both the cases died in a short time after, and it seems to me that in all cases of doubt innoculation tests are imperative,

Dr. Reynolds: The microscope bears a very important part in diagnosis in various diseases and certainly is of great importance and value to the medical profession.

I heartily agree with the Doctor that an examination of urine after twenty-four hours is best and that we get the secretions that went on during the entire twenty-four hours. The next best, he claims, is early in the morning before breakfast; it seems to me that just after breakfast or a hearty meal would be better.

As far as the diagnosis of the different varieties of cells are concerned, it would be very nice if we could do it as general practitioners. Thinking of this matter, I don't know of any location in the urinary tract, except possibly the pelvis of the kidneys, that do not contain some cells, that is in the acute, sub-acute and chronic state of the disease, and we would likely be mistaken in our diagnosis in the character of the cells found. It seems to me the epitheliam would be a very hard matter to diagnose, but if you find the epetheliam accompanied by pus or casts that, of course, substantiates the diagnosis and makes us locate the trouble. The epithelia alone is a question in my mind of a positive proof.

In a case where some cells were found which they thought would be cancer they operated on that belief with most alarming results: the patient died.

When you find the blood with a few casts or pus corpuscles the location would be in the kidney. It seems to me that you would have more than one epithelium to diagnose where the trouble is located. We could have the epithelia in cystitis and with the symptoms of local pain substantiate the diagnosis.

There is no positive proof, in my opinion, in depending absolutely upon the character of the cells found.

Dr. Prioleau: The subject has been so kindly received, that I want to thank the gentlemen who took part in the discussion. While microscopic urinalysis is interesting, I hardly dared hope that my short paper would meet with such general approval I am gratified beyond words, and in closing the

discussion I shall endeaver to answer the questions asked.

To the first who spoke, Dr. Minor, I wish to say that the smegma bacillus, being an acid resisting germ, has always given trouble when examining urine for the tubercle bacillus. In order to get a specimen of urine free from the smegma bacilli I follow the follow procedure :

First, cleanse the glans penis with a 1-6000 solution of bicloride of mercury, then irrigate the anterior urethra with a warm saturated solution of boric acid; pass in a sterilized catheter and draw off the urine.

To show the value of the epithelia in locating the disease in tuberculosis of the genito-urinary tract, I may cite the following case :

A young man came to us for diagnosis. His urine was examined and besides tubercle bacilli we also found pus corpuscles and epethelia from the prostate gland. The diagnosis of tuberculosis of the prostate gland was easily made.

In regard to staining the urinary sediment for tubercle bacilli, that has been answered by Dr. Dunn. Personally I have found little trouble if the urine is centrifuged and a drop smeared on a cover glass and allowed to dry in the air for twenty-four hours before staining. The mucus in the urine helps to hold the sediment together.

Examination of the urine for gonococci is only called for when all other tests prove that gonorrhea has been cured; not willing to leave a stone unturned you examine the urine.

To preserve a urinary deposit place it in a two per cent. solution of chromic acid. It will keep indefinitely.

Dr. Reynolds in his remarks says that he prefers for examination the urine passed after breakfast. So do I for *clinical* analysis but not for microscopical. The first urine passed in the morning is preferable as it contains the epithelia, pus corpuscles, etc., which have been thrown off or formed during the night. The diagnosis of cancer cannot be made from the urine unless along with the cancer casts you find large bundles of connective tissue.

Dr. Dunn has been kind enough to call your attention to the important point of always using the same magnifying power. For urinalysis I prefer a power of about 500 diameters. In the cases cited you will notice at the bottom "X 500" meaning multiplied 500 times.

Also I am obliged to the same doctor for emphasizing the fact that "one swallow does not make a summer" and that a diagnosis cannot be made from one epithelial cell alone. You must have many epithelia from the same organ to locate the disease.

Dr. Ambler has asked about the size of the epithelia in the different individuals as regards the genito-urinary organs. Epithelia vary in size, just as men do, and each urinary examination is based on the deposit of that urine. For instance, you cannot judge the epithelia in one urine by the pus corpuscles in another. Always find the pus corpuscles first and measure the epithelia by them.

The Doctor's statement about casts epithelial cell will not locate the disease—you must have many epithelia from the same organ to say posititively where the trouble is located.

Dr. Ambler has asked about the epithelia in all people being of the same size. Distinctly not—in the body of my paper I called special attention to the fact that each case had to be examined by its own deposit. Epithelia and pus corpuscles vary and in making an examination, first find the pus corpuscles and then measure the other epithelia by them.

As to the statement that casts in a deposit are not found at the bottom but in a stratum near the top, I am unable to explain. I have never noticed it myself, nor have I read it anywhere. For examination I always pour out the deposit in a watch glass, and in doing so it mixes very generally The point is important however, for when urine has settled in a tube and a slide specimen is made with a pipette, one might not get any casts, although they are there. Replying to Dr. Stevens' request I wish to repeat what I said about pus corpuscles. In 1879 Carl Heitzmann claimed that from the majority of pus corpuscles in a field he could tell a patient's constitution. The more coarsely granular and highly refractive the pus corpuscles are, the better the constitution. The more finely granular and less refractive, the poorer the constitution. Pus corpuscles with one or more nuclei indicate a very poor constitution.

Result of "Absent Treatment."

A young woman, who is a so-called Christian Scientist, had observed with a growing pity a cripple who passed her house daily. His efforts to walk were so evidently painful that she determined to try the "absent treatment" on him. After the first few days of her self-imposed task she thought she noticed signs of improvement, and one day he appeared without his crutch and walked with hardly a limp. She was so overjoyed that she rushed to the street, seized the man's hand, and said: "My

dear friend, you must excuse me, but I cannot refrain from rejoicing with you over your cure. I have used faithfully the 'absent treatment' for your infirmity, and I cannot tell you how happy I am to see by your walk that you have recovered." When the man rallied from the bewildering effect of this sudden outburst of "present treatment" he replied: "Thank ye kindly, ma'am, for your interest in me. I don't suppose it has hurt me any. But I may as well say I have just got from A. A. Marks a new wooden leg with rubber foot, and it works splendid, ma'am. The other old wood-foot-thing always did make me limp."—*The American Homœpathist.*

An Up-Builder in Post-Grippal Cases.

Very many of our readers know, by reputation, at least, Dr. Ohmann-Dumesnil, one of the foremost physicians of St. Louis. From a letter of recent date we are permitted to quote the following, which we do with pleasure:

"I needed a roborant, and took, with much benefit to myself, Hagee's Cordial of Cod Liver Oil Compound. Since then I have had occasion to use it in a number of cases of grippe, and in all of them the retults were of the best. The action of this preparation is rapid and thorough; and in a remarkably short time a case is recovered. It is certainly the remedy par excellence for this new prevalent affection.

"In a number of post-grippal cases in which enteric neuralgia, bronchial involvement, and a number of nervous symptoms manifested themselves I have found this preparation equally effective. It is an excellent up-builder, and rapidly restores to its former condition the weight which has been diminished by the waste of tissues consequent to grippe."

This is certainly very high praise and from an eminent authority.—*Massachusetts Medical Jaurnal.*

Treatment of Tetanus.

In recording the history of a case of severe tetanus, which was cured by intradural injections of tetanus antitoxin, E. Von Leyden (Deut. med. Woch.) briefly describes the development of what he considers to be the proper treatment of the disease. Von Behring introduced the serum with the belief that, once introduced anyhow into the body, the results would be efficient, and therefore it was at first injected subcutaneously. The unsatisfactory results led to its application into the vascular system, and later into the cerebral dural cavity, but without the hoped-for results. It was found that in fatal cases of the disease, treated in one of these ways, the blood was incapable of producing tetanus in mice, although, when not treated, it was capable of producing tetanus. On closer investigation, however, it was demonstrated that the spinal cord and the cerebro-spinal fluid contained tetanus toxin, and when these were injected into mice, the animals died of tetanus. Thus the subcutaneous or intravenous injection of antitoxin, although capable of rendering the toxin in the blood harmless, was powerless to attack the toxin in the cerebro-spinal fluid.

Von Leyden's assistant, Jacob, therefore suggested and applied the method of intradural injection, and the trial case recovered. Other observers attempted this method, and Von Leyden finds reports of five cases which died and five which recovered. His new case had a temperature of 105.8 deg. F., a temperature which, he says, is always followed by a fatal issue in tetanus. The treatment was begun on the third day, and considered in an intradural injection of five c.cm. of antitoxin (equal to about $\frac{1}{4}$ gram of solid antitoxin, and therefore about one-eighth of the usual subcutaneous dose) after 10 c.cm. of the fluid had been withdrawn, together with injections of morphine and the exhibition of chloral. The temperature sank on the same day to 101.3 deg., F., and on the next day to 99.3 deg. F. The fall in the temperature he regards as a distinctly life-saving result of the antiroxin. On the third day of treatment the injection was repeated. Of the other interesting points in the case he points out that (1) the patient had two years previously had a mild attack of "head" tetanus; this points to the inability of a given attack to protect against subsequent infection; (2) although working in a stable, no wound was present, and therefore the point of entry of the bacilli is unknown; and (3) no tetanus bacilli were found, either in the vomit or in the blood. On the other hand, mice injected with his cerebro-spinal fluid slowly developed symptoms of tetanus, that is, after six days.—*Indian Medical Record, Nov. 27, 1901.*

I have no hesitation in saying that I consider Peacock's bromides invaluable and have for years used it exclusively in my Sanatorium when bromides were indicated. Commercial bromides are crude and rank as compared with Peacock's. The greatest danger of injury to the patient and the product lies in substitution. I now only buy from my wholesale druggist in dozen lots. ALLAN MOTT RING, M. D.

Arlington Heights, Mass.

Charlotte Medical Journal.

EDWARD C. REGISTER, M. D., Editor.

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SUBSCRIPTION. $2-50 PER YEAR,

THE STATE SOCIETY MEETING.

The Medical Society of the State of North Carolina will hold its 49th annual meeting in Wilmington June 10th to 14th, 1902, under the Presidency of Dr. Robert S. Young, of Concord. Reduced round-trip rates have been secured on all railroads in the State and tickets will be on sale at all junctional points. It is a matter of regret to some that the date conflicts with the time of meeting of the American Medical Association; but we can all get ready to go next year to some more southerly point. As it meets at Saratoga Springs this year, it will likely come South next year.

We hope all the members will remember thePittman Prize this year and that a number will make an honest effort to win it. It is a passing commentary on the mental inactivity of our doctors when $100 is allowed to go begging year after year for a good paper on some subject pertaining to medicine. For the past eight years this prize has been regularly offered each year and only a few have half tried, but failed to get it during that time. As we have said before, it is doubtless a mistake on the part of the committee not to award this prize for the best paper presented, even though it fall below a certain standard. It is true that the letter of the conditions state that it must be given for a high order of merit, but the spirit of the whole gift is that it should fall to someone each year. If it is given for the best paper presented, no matter how poor, we will soon have a number of papers of the highest order in competition each year.

The county societies will likely come up at this meeting for a share of attention. The State Society evidently made a backward step when she cut loose from all local organizations and the time has come to rectify this mistake. Under the reorganization scheme of the American Medical Association the local society is made the foundation on which our great national organization is to be built. This is as it should be. Every State should be represented in the American Medical Association and every county should have part in the State Society. We can never hope to become a united profession until we make the local society the unit of strength. The man who has been expelled from his local society should not be allowed to join the State Society or the American Medical Association. Our Committee on Credentials has to pass on the professional standing of men from all parts of the State. Applicants may come from places they never heard of before, and yet they must investigate their standing in a few minutes and recommend or reject them. To make things easy they usually recommend everything that comes along. Without the local society as a help in the matter we get a great many undesirable members and worse than that we fail to get a great many good men who should belong and would join if they could be approached in a personal manner. A local society not only knows the real physicians in its neighhood, but can make a personal appeal to every desirable man within its bounds. As it is the State Society must content itself with a circular letter which is thrown in the waste basket. Nearly all the State Societies who are not working through the local society have reorganization committees at work to report at their meetings this year. As a State Society we must keep up with the procession if it is really progress.

We understand that papers for the program are coming in and we will have profitable entertainment in a scientific way for three whole days. The chairmen of the different sections are working with a will and the success of the scientific part of the meeting depends entirely upon them. We hope the discussion will be free and general and that the members will not be in such a stew to get back home. At Durham last year we had good discussions of nearly all the papers and it added very much to the profit and enjoyment.

Dr. Kent, as the leader of the annual discussion this year will give us something juicy to talk about and everyone can take a squeeze at it.

The program of the second day will be varied some what by the elections. At 10 o'clock in the morning seven members of the Board of Examiners will be elected to serve for six years. This means that an entirely new Board will be voted in and, as we have at least 70 members who are competent to fill these seven places, it will likely take awhile to decide the matter. In the afternoon the regular election of officers for 1903 will be held.

Just ten years ago the Society held one of its largest meetings in Wilmington and it is safe to predict that the largest attendance in the history of the organization will

sign the roll-book in June. The seaside will be unusually attractive at this season of the year and the social feature of the occasion will be a prominent one. The combination of pleasure and profit will be such that no physician can afford to miss this gathering. The busier you are, the more you need a season of relaxation and fellowship with your brothers in the work. The man who will not leave his work one week in the fifty-two for fear someone will get his patients will loose them in the long run by staying at home and he usually loses them to the fellow who goes about and freshen up by coming in contact with other doctors. The man is a boor who has no regard for the usages of social life and the doctor is lost who is steadfast in his own opinions and ability. Home-keeping doctors hath ever homely wits. We should all go to Wilmington in June for our own sake and the sake of others, to mix as brothers in a common cause, to enjoy ourselves, to give something, to get something, to be learners all let him teach who may.

VACCINE VIRUS--ARE WE PROVIDED WITH A SAFE AND PURE MATERIAL?

The medical profession of the United States during the past two months and more has observed a problem assuming proportions which demands careful and prompt attention. It is a momentous problem that will not down and must receive that attention which is necessary to a complete solution of this matter, which is a vital one to our whole country. We find ourselves in the midst of a more or less general and widespread epidemic of smallpox which is prevailing, and which in some sections have assumed serious proportions; the importance of the recognized preventitive treatment, vaccination, becomes particularly important. In the midst of this serious condition the profession is confronted by a queery that becomes a complicated problem; one that needs to be investigated at once and pressed to a definite conclusion. This problem is, Does the vaccine virus that we are using to-day protect against smallpox, and does it give immunity to those in which a sore arm is the result, and is it free practically from dangers?

Many of those who have been studying this subject during the past few months have become skeptical of some of the forms in which the virus has been prepared, as well as the source of supply, regarding both the virtue and safety of the preparations sold as virus. These are matters of great importance.

A most excellent article appeared in the January number of this Journal, page 8, by F. J. Runyan, M.D., of Clarksville, Tenn., entitled "Vaccine Virus with special reference to the Dangers of Glycerinized Lymph. Also by the same author in American Medicine for February 1st, 1902, page 191, "The vexed question of vaccination Again, &c.," two articles which should be widely read. Dr. Runyon has made extensive study of the matter, and gives some very conclusive arguments against the use of the glycerinized virus; besides this he shows that virus may be taken from parts of the scab which may be very dangerous. There are three recognized sources in the vessicle of vaccination from which the virus is prepared; two of these are known to be decidedly dangerous; the third the lymph tear or pulp, though somewhat weak in vaccine strength, is the safest, in fact almost entirely safe, being free of debre or pus cells which are found in the first two portions used as product for vaccine matter. It is understood that many vaccine producers use the second layer of the crust, which is a very dangerous part, as it is found to contain many pus cells and bacteria.

The general expression of the medical press and of members of the medical profession who discuss this matter, is that of the vital need of an authorized national commission either on the part of the Feneral government or by the American Medical Association, (if I may be allowed to deviate, these are some of the straws that are suggestive of the necessity of a National Board of Health, or a member of the President's Cabinet. It is to be hoped that the bill now before Congress "to increase the efficiency and change the name of the United States Marine Hospital Service," will become a law) such a commission to investigate or inspect all propagation of vaccine material, that all users of lymph will be protected. An excellent article in the Cleveland (O.) Medical Journal for August, 1901, earnestly urges the necessity of such a commission in this matter. In the meantime it becomes the duty of every practitioner to thoroughly enlighten himself regarding this material which he is expected to use every day in his practice. There are undoubtedly conditions at fault somewhere, else these complications which are noted in the medical literature of the past few months, and have been observed by many of us in our work in vaccine practice. T. J. Happel, M.D., Trenton, Tenn.,* had some remarkable and unsatisfactory results with vaccine virus in 1900; sore arms, ap-

*Journal of the American Medical Association, Sept. 8, 1900.

parent takes, in cases following attacks of smallpox and also after recent vaccinations. The sooner this matter is cleared and the profession is able to see the problem solved the better for us all.

MONEY, A SOURCE OF DANGER.

While we as medical practitioners and sanitarians are ever alert regarding the laws of hygiene and sanitation, hunting for the microbe of every disease, waylaying the mosquito, persuing the tubercle of consumption, immunizing against smallpox and diphtheria; we are prone upon our back regarding one universal source of dissemination and wide-spread means of infection and contagion.

What we refer to is the circulating medium, called money, a material that we readily receive and handle indifferently, even fearlessly—our circulating medium of commerce. Whether the flimsey paper bill, the siver or gold dollar and small specie—any and all of it is undoubtedly much of the time inhabited by the germs of some forms of disease. We may refuse to accept money from an individual with smallpox or other violently contagious diseases, but once he has been allowed out of quarantine we accept without question the fee or price for that which we served him, perhaps the same money which we had previously refused. There are many diseases which are often bourne, carefully concealed by individuals, often of a very serious type or nature by which the subject may infect anything about him with germs to be passed on to some unsuspecting individual, perhaps a delicate refined young lady, or even as occurred recently in Philadelphia where a bank teller became infected by the germs of smallpox through money which he handled.

Might not many of those supposed *de denovo* or isolated cases where it is impossible to trace a contact, be the result of contagion received through money that has been received or handled? The term "Filthy Lucre," is well applied; the new note not yet in circulation is the only piece which may be considered untainted.

The method or methods to overcome this condition and make our circulating medium of commerce free of this danger is not clear and will require much thought and labor to devise means for its disinfection. Much may be done by members of the medical profession individually. Every care should be exercised by the physician in charge of any infectious or contagious case of whatever nature, and by every quarantine physician, that all money be carefully and thoroughly fumigated that it may be comparatively safe before it goes again into circulation. Arrangements should be perfected by which through some simple device, all moneys deposited during the day in banks could be fumigated by formalin gas each evening on bank days. All coin could be baked, and all checks might thus be paid by disinfected money.

Since preparing this editorial we learn that in Philadelphia, where a severe epidemic of smallpox is prevailing circulars have recently been sent to all banks, business houses, &c., requesting that "all moneys be disinfected."

Congress might give us a credit system as is described by Bellamy in "Looking Backward."

RECIPROCITY BY FEDERAL COMPULSION.

A great many think that a measure of this kind is practical, and that our Federal authorities should take some action in the matter. Such a procedure would be surrounded with many difficulties; it is not practical; besides, these is very little necessity for such interference. Not one per cent. of the applicants appearing before the various examining boards, in the different States, are old practitioners. To modify and run the risk of crippling our State laws that govern the practice of medicine in order to accommodate this small number, seems to me to be a very foolish thing. Usually physicians who have been practicing any great length of time, don't care to move, there is no necessity for it; they have a good thing where they are. Usually, I mean to say, the class of practitioners who need this law the most are inferior men, who are trying to find an "opening." The Philadelphia Medical Journal has very much the same idea about this reciprocity movement as we have. In the issue of February 2, 1902, the editor says:

Reciprocity by Federal compulsion has been urged by those who feel the injustice or hardship resulting from the limitation of license to practice to individual States. But if it were possible it would be inadvisable. By the principles of our Constitution the regulation of such matters must be left to the individual States. The remedy for the present troubles must come somewhat slowly, and if the slow progress at times bears hardly upon some individual practitioners living near State border lines or moving from one State to another, it will result in a greater good both to profession and public. Progress of the best kind will come through reciprocity between States having equally high standards of their examining boards. This will encour-

age the laggard States to raise their demands and thus prepare for the time when reciprocity will be so general that little complaint will exist.

ALCOHOL AND DISEASE.

Kraepellin[1] after very careful study and minute investigation summarizes the effect of the prolonged use of alcohol as follows; Fatty heart, catarrh of the stomach, cirrosis of the liver, contraction of the kidneys, marked changes of the blood. In the brain marked changes in the nerve cells, extravisation of the blood, thickening of the cerebral membranes, especially pachymeningitis, and finally peripheral neuritis.

Echeverria, Martin, and Patterson[2] agree that it is a most important factor both directly and indirectly in the production of epilepsy. Various pathologists and eminent clinicians have testified and shown that alcohol is a most important factor in the production of epilepsy.

Osler[3] speaks definitely of the effect in this direction and refers to the studies of Echeverria and Martin, Rush of Philadelphia, Marcel of Paris and others testify as to the frequent dependence of insanity to alcohol.

Gould[4] classes alcohol as the cause of death equal with War, Famine and Pestilence; and is less in its evil only to syphilis, gonorrhea, with sequels, suicide and homicide. It is known that a large percentage even of these crimes and diseases are largely the result of the excessive use of alcohol.

G. Sims Woodhead[5] of Edinburg, considers alcohol a narcotic which may be observed to produce most pernicious effects at all times and to be one of the most dangerous article in the pharmacopiae prescribed by any physician or surgeon.

With such a catalogue of pathological evils to the credit of this one article, it were well that the medical profession study the matter deeply and thoroughly, since as a matter of state medicine it will prove to be one of the greatest importance.

As true physicians, earnest sanitarians, conservers of the human race, and as true citizens of civilized countries, this becomes a great achievement for the medical profession to work out, a great reform to be brought about that this crime and disease producing substance will be put under complete control, and the human family thus rescued from its destroying effects; that it may be under such control that will regulate its sale and use as strychnia, morphia and other dangerous alkaloids is to-day to be used only in its true therapeutic indication.

This is a work as well as the duty that surely lies in the future of the medical profession of the world. Time will come and go with this evil yet with us, but eventually it will be taken up and fought out to a finish by our profession. It is a monster and is attracting the attention of leaders in all walks of life, but it remains with the members and es-prit-de-corps of the medical profession of the world to take the lead in the battle for this great work, they or it alone are able to fully observe and realize the many side dire effects that is exerted by it upon the human family.

1. Kreapelin; Psychiatrie, Fifth Edition, p, 369.
2. Hamilton; American Medicine, Dec 21, 1901. p, 1000.
3. Osler; Practice of Medicine, 1902. Ed. p, 1004.
4. Gould; American Medicine, Aug. 31, 1901, p, 327.
5. G. Sims Woodhead: Edinburg Medical Journal.

SELF PRESERVATION A DUTY.

Every individual is of importance to himself. His health and strength is of vital importance to himself and to all those who are dependent upon him as well as all who are related to him in any manner, socially, professionally or otherwise. There is no one, after attaining to the years of responsibility who can care for his wellbeing so well as the individual himself.

This is important to the practitioner of medicine. Here the individual holds information, knowledge and power which may be of prime importance to many persons at various times and at unforeseen moments. At such times his fullest powers, mental and physical, may be required in the service of some individual needing his aid. Such a condition being recognized it becomes necessary that the practitioner of medicine takes the most convinent and proper precaution to obtain the needed rest and recuperation from time to time that he may retain his full strength of body and intellect.

We wish more directly to address the younger members of our profession; those about to launch forth in the healing art, and those of a few years of experience only. Many enter practice with an unbounded ambition to achive greatness at a bound; the older members in the profession have learned how to care for themselves even in the rush of epidemics and busy seasons. While it is quite proper and commendable for a physician or surgeon to have ambition for a large clientelle, there is a limit however to his endurance and ability.

The medical man should be intellectual and honest enough to recognize such possibilities and act accordingly; he should be satisfied to loose some practice and some fees. There are physicians who will be glad to do some extra work occasionally that you may be able to take a needed rest. And with the present condition of "a crowded profession" no harm can come from a little reciprocity of this kind.

By thus caring for his health and strength his years are prolonged, his mental ability is more keenly allert to his patient needs and he continues a joy to his family and friends.

Let all of us be more rational in our personal preservation, avoiding that condition of strain and strenuous efforts to do everything, which presents, so much so that we are forced to use artificial stimuli to recuperate our powers to stand the tax we have put upon ourselves. This has been the death knell of too many ambitious men in our profession. We should endeavor to have a regular time for our meals, sufficient hours of sleep, relaxation and diversion of our thoughts occasionally in channels away from medicine.

ANASARCIN.

We call the attention of our readers to the advertisement notice of the Anasarcin Chemical Co. of Winchester, Tenn., regarding the preparation or remedy Anasarcin, which they prepare for use by the medical profession.

They have given the product of the laboratory their careful attention, and have combined several alkaloids with which to secure special effect or action upon the economy of the human body under certain pathological conditions.

In their literature they claim excellent results in various abnormal conditions and there is strong reasons that the results may obtained by the careful use of this article, since the firm is quite definite in its claims in this respect.

If such results prove to be obtained by this product, it will be well for the profession to give it careful examination and study, since the remedies now used in these conditions for which this preparation is commended gives varying results, which in many cases are far from satisfactory.

The Board of Medical Examiners of the State of North Carolina will meet in Wilmington, June 4th, at 3 o'clock, p. m. All applicants who expect to take the examinations are expected to be there at the beginning of the session and register so as to be ready for the first examination on Thursday morning.

The railroads will give reduced rates to all who attend this meeting.

MEETING OF THE TRI-STATE MEDICAL ASSOCIATION OF THE CAROLINAS AND VIRGINIA.

This Association met in Asheville on the 25th of February. We learn that only a very few papers were read, and the attendance was, indeed, small—not over twelve or fifteen physicians outside of Asheville were present, and only three from South Carolina.

The interest in this new Society seems to be steadily diminishing.

BOOK REVIEWS.

International Clinics. A Quarterly of Clinical Lectures and especially Prepared Articles on Medicine, Neurology, Surgery, Therapeutics, Obstetrics, Pædiatrics, Pathology, Dermatology, Diseases of the Eye, Ear, Nose and Throat, and other Topics of Interest to Students and Practitioners, by Leading Members of the Medical Profession throughout the World. Edited by Henry W. Cattell, A.M., M., D., Philadelphia, U. S. A., with the Collaboration of John B. Murphy, M.D., of Chicago; Alexander D. Blackader, M. D., of Montreal; H. C. Wood, M.D., of Philadelphia; T. M. Rotch, M. D., of Boston; E. Landolt, M.D., of Paris; Thomas G. Morton, M. D., and Charles H. Reed, M.D., of Philadelphia; J. W. Ballantyne, M.D., of Edinburg and John Harold, M.D., of London. With regular correspondents in Montreal, London, Paris, Leipsic, and Vienna. Volume IV. Eleventh Series, 1902, Price $2.00. Philadelphia: J. B. Lippincott Company, 1902.

This volume contains 107 illustrations, 34 special formulæ, table on infant feeding from one week to three year, and no less than 36 authors, the majority being widely known American teachers of the highest rank, and known to every physician who reads. Among them we notice the names of Norman Bridge, Chas. H. Burnett, John B. Deaver, Wm. S. Gottheil, J. P. Crozier Griffith, A Jacobi, J. Frank Lydston, John S. Musser, Frederick A. Packard, Nicholas Senn, Alfred Stengle, John Madison Taylor, and James J. Walch.

Their list of articles and practical instructions and the help they give is remarkable, and will cause still more wonderment when

the price is considered, but most important this is only one of the four which are truly a miniature working library and the greatest value ever offered to the medical profession.

This 11th, series has 1221 pages, 110 articles, 259 illustrations in colors and black and white, and from 20 to 36 of the leading writers of the world represented in each volume.

A Manual of Venereal and Sexual Diseases. By Wm. A. Hackett, M.B., Ph.G., M. C.P.S.(Ont). Professor of Dermatology and Venereal Diseases, Michigan College of Medicine and Surgery; Attending Physician to the Emergency Hospital, Detroit; Member of Wayne County Medical Society, Detroit Medical Society, etc., and N. E. Aronstam, M.D., Ph.G., Assistant in Chemistry and Clinical Dermatology, Michigan College of Medicine and Surgery; Attending Physician to the Emergency Hospital, Detroit; Member of Wane County Medical Society, Detroit, Medical Society, Medico-Legal Society, (New York), etc., 1901. G. P. Engelhard & Company, Chicago.

In this volume the authors have endeavored to discard all theoretical knowledge pertaining to these subjects, and have given in as brief and concise a manner as possible the practical side of these branches of medicine. All modern appliances, used in the treatment of venereal diseases, have been amply discussed and the methods adopted for the treatment of the various maladies described in the subsequent pages, are those which have been recommended by up-to-date Syphilographers.

Part IV. treats of the functional disorders of the male generative organs, together with the most important sexual physchopathies.

This book will prove useful to the student and the busy practitioner.

Lectures on Chemical Pathology in its relation to practical medicine, Delivered at the University and Bellevue Medical School, New York City, by C. A. Herter, M. D., Professor of Pathological Chemistery, University and Bellevue Medical School, New York; Visiting Physician to the City Hospital; Late Consulting Physician to the Babies Hospital; Consulting Pathological Chemist to the Craig Colony for Epileptics, etc. London: Smith, Elder & Co., Waterloo Place 1902.

The lectures which make up this volume were delivered at the University and Bellevue Hospital Medical College during the Sessions of 1899-1900 and 1900-1901. They are published with the hope that they will prove useful to students and practitioners of medicine who have not had the opportunity to keep in touch with modern research in the field of Chemical Pathology.

The aim of the writer is to sketch the leading characteristics of the physiological and pathological processes that have come under discussion, without describing these processes fully or systematically. It has been deemed best to omit some topics of importance which were presented in the lectures, for example, the pathological chemistry of gall-stones and of fat necrosis of the pancreas.

The short list of references at the end of each lecture is designed to put the reader on the track of the most significant literature.

Studies in the Psychology of Sex. Sexual Inversion. By Havelock Ellis, L.S.A. (England); Fellow of the Medico-legal Society of New York and the Anthropological Society of Berlin; Honorary Fellow of the Chicago Academy of Medicine, etc.; general editor of the Contemporary Science series 1899. The "Studies in the Psychology of Sex" will probably be completed in five volumes. "Sexual Inversion" is second volume in the series. Pages xi-272. Size, $8\frac{5}{8}$ x $5\frac{3}{4}$ inches. Extra Cloth, $2.00 net, delivered. Sold only to physicians, lawyers, and advanced teachers, and scientists. Philadelphia, Pa.: F. A. Davis Co., Publishers, 1914-16 Cherry Street.

Four years ago the first edition of this book was published in London. Since then it has been published in this country, and has been well received by competent critics. It deals principally with the inverted sexual manifestations and describes many cases that are indeed very interesting,

The Practical Medicine Series of Year Books Comprising ten Volumes on the Year's Progress in Medicine and Surgery. Issued monthly. Under the General Editorial Charge of Gustavus P.Head, M. D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School. Volume III. The Eye,Ear, Nose and Throat, Edited by Casey A. Wood, C. M., M. D. Albert H. Andrews, M. D. T. Melville Hardie, A.M., M. D. December, 1901. The Year Book Publishers, 49 Dearborn Street, Chicago.

The third volume is the best, so far of

the series. It contains 346 pages, and is beautifully illustrated. The price of these ten volumes is ten dollars.

Outlines of Anatomy. A Guide to the Methodical Study of the Human Body in the Dissecting room. By Edmund W. Holmes, A. B., M. D., Demonstrator of Anatomy, University of Pennsylvania (1892-1901); Surgeon to the Methodist Episcopal Hospital; Consulting Surgeon to the State Asylum for the Insane, Norristown; Consulting Surgeon to the Northern Dispensary, etc., etc. Second Edition. Press of the New Era Printing Company, Lancaster, Pa., 1902.

This little book of 200 pages is intended for the student in the dissecting room—for reference. It is well written, and nicely arranged.

A Brief Manual of Prescription-Writing in Latin or English for the use of Physicians, Pharmacists, and Medical and Pharmacal Students. By M. L. Neff, A.M., M.D., Cedar Rapids, Ia. Pages v-152. Size, 8 x 5¾ inches. Extra Cloth 75 cents, net, delivered. Philadelphia, Pa.: F. A. Davis Co., Publishers, 1914-16 Cherry Street.

This manual is designed to give the student the necessary knowledge of Latin, and also the needful general rules governing the writing of prescriptions. It is admirably calculated to fulfil its purpose.

Where Magnolias Bloom. By F. B. Gullens. Abby Press, New York.

This little book of 80 pages attempts to describe Southern life before the Civil war. Like all stories of this kind, his pictures are over-drawn. The people in the South never reached the degraded, brute-like condition he describes, nor attained that cultured, chivalric feeling that was superior to that of any other people.

The little book, however, is worth reading.

Journal of Obstetrics and Gynecology of the British Empire.

This is the title of a new journal, the publication of which has been begun under excellent editorial management in London. It is proposed to make the journal an impartial and complete record of British obstetrical and gynecological practice, and an exponent of contemporary thought and achievement in these branches of medicine and surgery throughout the world.

Transactions of the Ohio State Medical Society, 1901.

The proceedings this year fill a large volume of 500 pages. It is substantially bound in cloth and contains many illustrations. Over sixty papers were read and discussed. Many of them show evidences that the Society is made up of scientific physicians and surgeons. Dr. M. C. Brush is president and P. M. Foshay, M. D., of Cleveland, is secretary.

LITERARY NOTES.

The quality of "timeliness," for which the Review of Reviews has made a reputation, was never better exemplified in the pages of a magazine than in the February number of that wide-awake monthly. The subjects treated in the Review are just the ones that the whole country is talking about—the Cuban and Philippine tariffs, the Panama vs. the Nicaragua canal route, the "Raines Law" in New York and the Sunday closing of saloons, the South American boundary disputes, the Venezuelan situation, the approaching visit of Prince Henry of Prussia, the Schley controversy. These matters are all editorially discussed, but the contributed articles deal with a wide range of topics not less interesting to the reader who cares to follow the day's news with intelligence. Among these are sketches of the new Secretary of the Treasury, Leslie M. Shaw, of Tomas Estrada Palma, President-elect of the new Cuban Republic, and of Dr. Nicholas Butler, who has just been made president of Columbia University, succeeding Mayor Seth Low; an exposition of wireless telegraphy and Marconi's triumph in making it practicable; a description of Oklahoma and Indian Territory, which are now knocking at the doors for admission to Statehood; an exceptionally thorough study of the Turkish situation in its latest phases by one who was born in that land and knows its conditions; an exhaustive discussion of the methods proposed for the treatment of anarchism, with original suggestions; an account of the successful attempt of Kansas farmers to escape from the grain-buyers' trust; and the history of Wisconsin experiment which illustrates one phase of the independent telephone movement now assuming so much importance in the Middle West. Other departments of the magazine — cartoons, "Record of Current Events," and "Leading Articles of the Month"—are equally well supplied with fresh and pertinent material bearing on

matters of current interest in politics, literature, science and industry.

The editorial department of the Review of Reviews, headed "The Progress of the World," covers a wide range of topics. In the first number for the new year, for example, are summarized the results of the past year's progress in mechanical invention, the lessons of the Boer war and the influences at work for international peace, the recent revival of racial self-consciousness on the part of the Poles living under German rule, the points at issue in the German tariff debate, the extent and prospects of the German colonization movement in South America, the causes of the revolutionary uprisings in Columbia and Venezuela, the new Isthmain Canal Treaty and the Hepburn bill before Congress, the issues in the coming Cuban elections, the arguments for and against trade reciprocity with Cuba, the report of the Philippine Commission on civil government, the Philippine tariff, the findings of the Schley Court of Inquiry, Lord Rosebery's great speech to the English Liberals, and a score of other important matters which especially claim our attention just as the new year dawns.

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The March number of the Forum opens with a statement, by Walker D. Hines, of the objections brought by the railroad companies against "The Proposals of the Interstate Commence Commission." On another subject of immediate political interest the case of either side is simultaneously presented, Hon. Truxtun Beale arguing in favor of Chinese Exclusion and Hon. Robert Hutcheson against it. From the conclusion of an article by Hon. Charles Denby on "The Duties of a Minister to China" it appears that this former representative of the United States at Peking is to be numbered with the exclusionists. The account given by R. E. C. Long of "Some Remarkable Russian Engineering Projects" shows that the epithet he has chosen for use in his title is far from being an exaggeration. Considerable criticism will probable be excited in educational circles by Prof. G. T. Ladd's outspoken exposition of "The True Functions of a Great University" and his discussion of the extent to which these functions are at present being fulfilled in America. "Ambassadors of Trade" is the appropriate heading of a plea by J. G. Whiteley for the reform of the consular service. Among other notable articles included in the contents of this month's issue are "Employers' Liability in the United States," by Prof. A. A. Bruce; "German Industrial Corporations and the Forcing of Markets," by W. Beardrow; "The Merit System in Porto Rico," by Prof. J. H. Hollander; "The Primary Election Movement," by Albert Watkins; "The Consolidation of Schools," by C. E. Blake; "Fire and the Forest Reserves," by C. S. Newhall; and "The Educational Value of World's Fairs," by W. Ordway Partridge.

Scribner's Magazine for March begins another of its important features for the current year—the reminiscences of Daniel C. Gilman, who for twenty-five years was president of Johns Hopkins University. President Gilman created a new type of University in America, and one which has proved its success by the great number of scholars and distinguished men which it has already produced by its exact methods of study. "The Launching of a University" tells the story of the conception of the idea, and the first steps in gathering together the remarkable group of professors who at the very start gave the University prestige among men of learning. President Gilman has an unusual gift for telling an incident with humor and directness. This first paper is filled with good stories of such men as Huxley, George Peabody, Rowland, the great scientist, Sylvester, etc. Two more papers will continue, in this most entertaining manner, to describe the growth of the University idea, and the connection of great men with it—something that has not been done in recent times.

* * *

Sir Charles W. Dilke contributes to The Cosmopolitan for February an article on "The Naval Strength of Nations," which gives not only a most interesting and comprehensive account of the navies of the great powers but also a clear insight into the worlds politics. Few men possess such knowledge as the author's, gained from years of experience in a diplomatic and political career. The article is so broad in scope and straightforward in treatment that it will be read with interest not alone by statesmen but by every one whose thoughts travel beyond the immediate wants of a single day.

ABSTRACTS of the Leading Articles of the Month.

Anesthetics.

Magaw (St. Paul Medical Journal) has come to believe more in the ether-drop method in the majority of cases as the safest,

though perhaps a little more troublesome to the operator. The use of chloroform which has been tried in all sorts of cases is considered rather more dangerous. Nitrous oxid gas as a preliminary to ether has been tried, but the benefit seemed slight. The main thing to recommend it is that the patient seems to lose consciousness more quickly. For short minor operations nitrous oxid gas is far superior to either chloroform or ether. All patients are anesthetized in the operating rooms, merely giving the operator time to prepare. The inhaler used is the Esmarch, with two thicknesses of stock inette, changed after each patient. In giving ether the doctor commences with the drop method slowly and carefully with as much air as though it were chloroform, until the patient's face is flushed, when she uses a large piece of surgeon's gauze of several thicknesses and keeps adding a few more pieces of gauze until the patient is asleep. The gauze is then removed and the anesthetic continued with the same covering as at the first. If any degree of regidity persists the patient is not etherized. The writer considers touching the conjunctiva a dangerous practice, as it might infect the eye. In the condition of complete anesthesia respiration should be regular, inspiration deeper and often accompanied by snoring, expression peaceful, eyes closed, and all the muscles relaxed. For quick breathing or profuse secretion of mucus, lift the mask and allow several breaths of fresh air. Then continue with the ether. In gall-bladder work especially, the patients are sometimes noisy, as coming in contact with the diaphragm causes an increased and irregular respiratory rhythm which is mistaken for an indication for more anesthesia. If the patients have already reached surgical anesthesia this irregular respiration and grunting does not interfere. There is no need of increasing the dose. The same symptoms may follow operation on the sphincter muscles. Patients who have had peritonitis require almost a dangerous amount of anesthesia to produce relaxation of the abdominal rigidity. In cases of the tongue falling back raise the lower jaw up and forward, not using the tongue forceps, but catch the tongue with a piece of gauze and draw it out and up toward the nose and a little to one side, and without the anesthetic. In alcoholic cases and operations on the stomach 1-8 of a grain of morphine before operation may carry the patients through better and with less ether. Chloroform should be given with more air and less quantity and with the regular drop instead of the stream. It should be slowly and carefully given, the pulse being taken at the facial and temporal arteries. The anesthetist should never allow himself to be hurried. The mask should always be held so that the patient can get a liberal supply of air while administering chloroform to avoid choking and struggling, and any irregular and shallow respiration should lead to the prompt withdrawal of the mask. A rapidly dilated and fixed pupil always indicates danger, while a pupil contracted to normal size or a little less indicates surgical anesthesia. Blanching of the lips, ears and nose show the need of more air. All these symptoms should be watched and no one of them relied upon. Statistics are of very little consequence as to the amount of ether and chloroform required. Just as much is needed as will do good work and not a drop more. In giving nitrous oxid a dental apparatus is used. The change to ether is made quickly, ether is crowded, air excluded, the gas abandoned altogether. The Esmarch mask is used for this purpose with several thicknesses of gauze for a closed cone, and after the patient is fully under the drop method on the original cone. To prevent after-vomiting various things are recommended, but since only about 40 per cent. have this symptom it is hardly worth while to submit all to such remedies as vinegar and saline solution.

Alcohol for Medicinal Purposes.

The medical profession recognize that under many circumstances brandy and whiskey are valuable medicinal agents, which exert a definite therapeutic action, and for which an adequate substitute of a non-alcoholic nature cannot be obtained.

The Medical Press and Circular says that the terms whiskey and brandy as a rule, the public understand are certain well-defined products. The name whiskey, for instance, is now applied to many products of distillation which are wanting in the therapeutic and physiological properties which in the past secured for the liquid a place in the physician's list of trustworthy remedies. To secure this medicinal agent, malt or rye pot-still whiskey must be obtained. Grain, corn, molasses, and patent-still spirit should not be accepted. Patent-still whiskey has nothing of the therapeutic properties the physician looks for when he prescribes whiskey. Time in no way modifies the spirit; it comes over as an hydroxylate of ethyl and dissolved in water, and is the same years after the distillation as when quite fresh from the still. This spirit has little if any of the physiological effects of an old matured malt pot-still whiskey. It is wanting in the power of dilating the arterioles, which so diminishes the strain

on the heart and allows of the internal viscera being unloaded. Its use is followed by the increased cerebral tension that manifests itself so often in violent headaches and the dreadful bursting sensation in the head with which drinkers of cheap whiskies are so familiar. Neither does it unload the liver nor kidney, and organic changes in these orgens and catarrh of the stomach quickly follows its use. For these reasons we consider patent-still whiskey and blended whiskies containing patent-still whiskey as quite unsuited for therapeutical use. The disadvantages of new corn, Indian corn, wheat, and molasses whiskies are well known, and it is unnecessary for us to dwell on them. We may, however, say that fresh whiskey of pot-still make is a maddening liquor, and quite unfit for use, we think no such spirit should be used until it has been matured for at least five years in wood. The necessity for this is evident when we recognize that in the distillation of malted barley by the old pot-still proccss the hydroxylate of ethyl comes over with a slight percentage of the hydroxylate of propionic and amylic alcohols; these alcohols, espscially the latter, give the fine pineapple flavor of old Irish pot-still whiskey wares, and to the same, the well known physiological action of the spirit is due. But the acquiring of this flavor and property is a matter of time, the amylic alcohol ($C_5 H_{12} O$) must be changed into amylic ether, or the oxide of amyl, together with a certain percentage of aldehydes. Until these changes occur both whiskey and brandy are unsuited for medicinal use; experienee has taught that they occur more quickly in wood than in glass, they can be readily detected by their characteristic bouquet. To imitate this bouquet many flavoring agents are used, the majority of which consist of the so-called fruit wines and essences with added artificial ethers; but these do little but mask the patent-still and other cheap spirits—they never properly blend with the menstruum, and really convert the inferior spirit into a toxic agent. For medicinal purposes we consider that a pure pot-still whiskey—unblended—of fully five years in bond is most suitable, and is doubtless as efficacious as high quality brandy. It therefore constitutes an agent which can be prescribed by the medical profession with confidence.

Treatment of Neurasthenia.

D. J. G. Biller (Journal of the American Medical Association, Jan. 4, 1902,) says that the first requisite is that the patient should have confidence in the physician, and that the latter's visits should not be too hurried or too far between. As for the diet, all cases of neurasthenia do not require to be put on a stuffing diet; but nearly all want considerable attention. The importance of fresh air in the treatment of these cases cannot be overlooked, for patients suffer more from the want of it than we fully realize. Both mental and physical rest should be procured for them. Good feeding and good air does much to make them sleep, but occasionally, and sometimes frequently, for a time, these people must have a soporific. The medicinal treatment of one of these cases by using the co-called tonics, will be disappointing to both the patient and physician. The beneficial remedies are those that aid in digestion and increase the activity of the liver. A surprising benefit will result from the use of a quarter of a grain of calomel every second night for a week or so.

Treatment of Chronic Round Ulcer of the Stomach.

According to Fuelterer (Journal of the American Medical Association, Jan. 11, 1902), a lack of volume of blood does not necessarily promote the formation of an ulcer; he believes that an ulcer of the stomach can form only when there is a certain amount of hæmoglobin lacking, and that it must heal when the hæmoglobin percentage is increased to a certain amount. In his practice, when an ulcer of the stomach is diagnosticated or suspected, the patient is advised to go to bed, either in a hospital or at home, employing the services of a trained nurse. The juice of five pounds of beef is given daily, as the case may require, to bring the percentage of hæmoglobin up to the normal as soon as possible. Prepared beef extract does not give the desired result. Peptonized beef solutions are not tolerated in sufficient quantity. After the percentage of hæmoglobin has become normal the patient should have nothing to eat or drink for from two to five or six days. Rectal nourishing enemata may be given twice a day, preceded by a cleansing enema. After the period of total abstinence, milk should be given for from four to six weeks, after which solid food according to the dietary of Leube, or Pentzold, may be taken.

The Difficulties in the Treatment of Infantile Scorbutus.

Saunders (St. Louis Courier of Medicine) considers the following complications: 1. *The infant has complete anorexia and refuses all food.* Forcible feeding must be resorted to; the food must be given in small quantities with a spoon, or better still, with a dropper. It may have to be introduced

to the stomach tube; 2. *The infant vomits incessantly.* Several teaspoonfuls of orange juice in three or four ounces of starch solution or some cereal decoction should be given per rectum high up in the sigmoid twice a day; the irritability of the stomach must be quieted by appropriate means. Egg-albumin water is one of the best foods. When the stomach is improved in condition, meat juice, whey, and cream mixtures, or better still, human milk, is given; 3. *The infant suffers from enterocolitis.* Intestines must be cleansed by rectal irrigation; serous stools controlled by atropine and morphine. Some cereal decoction should be used as the base of foods; to this is added a little white of an egg, whey, human milk, or meat juice, but fruit juice must be added to whatever is used. Water with a little lemon juice should be given. Peach juice and grape juice can be given.

Skin Eruptions in Bright's Disease.

Prengle (Practioner, London,) gives Thursfield's classificatian as follows: (1) The affections which characterize (or may arise in) the early stages of renal disease: pruritus, uticaria, eczema; (2) those which occur in the final stage and in uremic conditions—the universal erythematous, bullous and desquamative eruptions; (3) purpura and other hemorrhagic eruptions; (4) those affections which are seen only with marked edema. The author states that the process is probably similar to that by which eruptions are caused in septicemic or ptomain poisoning, i.e., toxins acting through the vasomotor and tropic nerve systems. It is certain that neither urea nor uric acid is the toxic substance at work, and it has been suggested that substances of aromatic group which reduce Fehling's solution and which are frequently present may be the active agents; but no cogent evidence has been adduced on this point.

Treatment of Pneumonia.

Wells (Journal of Am. Med. Association, Jan. 18, 1902) believes that in many healthy persons the pneumococcus is present in the upper respiratory passages and it is probable that pneumonia is due to aspiration. Discharges from these passages should be treated in such manner that the germs cannot gain access in the form of dust or spray to the respirable air. Pneumonic sputum should not be allowed to become dry and should be burned, and acid, followed by alkalin solutions, should be used to cleanse mouth, nose and throat. Capillary paresis interfering with proper tissue nutrition calls for mercurial and saline cathartics, bleeding to 500 or 750 cc., free perspiration, administration of fluids, digitalis and adrenalin. Leukocytosis should be encouraged and nucleinic acid is suggested. The blood platelets and coagulability of the blood are lessened by its use. Lime and gelatin should be avoided as favoring coagulation. Milk and other foods should be well salted and saline enemas administered as the absence of chlorids from the urine suggests their need in the blood. Abdominal symptoms should be carefully looked for and intestinal paresis avoided by regular evacuation, proper diet and an antiseptic as salol. Oxygen inhalations, begun as soon as there is progressive increase in frequency and shallowness of breathing, acts beneficially as a respiratory stimulant. Rapidity of change in the patient's condition should be anticipated and met by unremitting attention.

General Medical Treatment of Syphilis.

G. Frank Lydston (Medical News, Jan. 18, 1902) says that the cardinal principle in the therapy of syphilis is that the physician should remember that he has to deal with three factors: 1. A specific disease to be controlled by specific medication; 2. A distinct individual personality in each patient; 3. The results of antiseptic medication. The individual is too apt to be ignored in the treatment of syphilis. The general hygenic management of this disease is most important. Hot baths are very useful, for they increase the therapeutic action of mercury and iodide and limit their possible injurious effects. Attension to the bowels is very important. Digestive disturbance is a common result of the administration of antisyphilitic remedies and may be avoided by experimenting till that form of the mercurial salt is found which is adapted to the individaal under treatment. Often when the patient does not tolerate the mercury and iodide well, the substitution of potassium chlorate is most happy in its results. Tonics also must not be overlooked. The general intelligence and therapeutic skill of the practitioner are important factors in the successful treatment of this diseaee.

Effects of Suprarenal Extract.

Langley stated, at the recent meeting of the International Congress of Physiologists (British Medical Journal, Dec. 21, 1901), stated that he had found in addition to the effect described by others that suprarenal extract caused:

1. Secretion of the salivary and lacrimal glands and of various mucous membranes. The salivary secretion was at first accompanied by constriction of the gland blood-

vessels, and later by slight dilatation. Atropine and suprarenal extract had therefore on this secretion a mutually antagonistic action much like atropine and pilocarpine.

2. An increase followed by a decrease in bile secretion.

3. Inhibition of the gall-bladder.

4. Inhibition of the cardiac sphincter of the stomach (rabbit)and of the walls of the stomach (rabbit and cat).

5. Slow contraction of the pupil in the dog.

6. Contraction and pallor of the uterus, vas deferens, and seminal vesicles.

7. Dilatation with palor at the end of the rectum and internal sphincter in the rabbit; slight contraction and pallor in the cat and dog.

In nearly all cases suprarenal extract produced a similar effect upon a tissue to that caused by excitation of its sympathetic nerve, and in no case did it produce an effect of the same kind as the cranial autonomic nerve to the given tissue, with possible exception of construction of the dog's pupil. Notwithstanding, action appeared to be a direct one upon the tissue and not upon the sympathetic nerve endings, for after degeneration of the postganglionic fibers of the cervical sympathetic in the cat, the extract caused its usual effects on the eye, the submaxillary gland, and the hairs of the face. The action of the suprarenal extract on the secretion of saliva and on the cardiac sphincter was demonstrated.

Mercury in Diseases of the Heart.

Wallace Beatty (Dublin Journal of Medical Science) makes the following statements regarding the cases in which mercury is of real value:

(1) Of all conditions in which mercury is useful, one in which it is most certain to do good is general venous engorgement due to chronic primary mitral-valve diseases. In a typical case there are a rapid, irregular, compressible pulse, physical signs of dilatation of heart, a regurgitant or obstructive murmur, full and pulsating cervical veins, an enlarged and congested liver, high-colored, scant, and albuminous urine from congested kidneys, anasarca, and perhaps some ascites—in short, all the evidences of back pressure; (2) The cases of general venous engorgement dependent upon mitral incompetence (relative incompetence) secondary to aortic regurgitation of old standing; (3) Cases of dilatation of the heart with general dropsy, but yet no obvious valvular disease, there being no murmur and no evidence of kidney disease; (4) Cases of general venous engorgement from failure of the right heart, caused by severe emphysema and bronchitis; (5) Cases of general venous engorgement due to cardiac dilatation following upon long-continued hypertrophy of the left ventricle, due to chronic interstitial nephritis.

Goose Grease in Ringworm.

Dr. Jackson (Med. Age) uses the crystals of iodine, one-hall to one dram, rubbed up in goose grease, one ounce, and directs that the ointment be thoroughly worked into the patches by means of a stencil or stiff paint brush. Dr. Jackson's success has been especially marked in curing ringworm of the beard. Under the microscope hairs show staining down to the bottom of their roots. On the scalp of a child it does not seem to be very irritating, and the patches get well.

The greatest difficulty in the way of using goose grease is in getting it. The best quality of the article is very expensive as it is made from the fat taken from a dead but uncooked goose, which spoils it for cooking, and so a few ounces of fat costs as much as the whole goose. . . . Some perfume may be added to make it pleasant to use.

Pathological and Therapeutic Aspects of the Rontgen-Rays.

Beck (Medical Record Jan. 18, 1902) says that the most characteristic difference between ordinary burns and the integumental changes produced by the Rontgen-rays is the fact that the latter do not manifest themselves before the lapse of a period of incubation, as a rule after about two weeks. This latent stage last about ten days in the simple type of Rontgen-ray dermatosis. A condition of hyperemia then develops, the skin is at first light, later dark red, and finally becomes brown and scaled. After a few weeks there is complete recovery, sometimes leaving slight pigmentation. There are two other types of this dermatosis, the bullous and the necrotic. In the bullous, intense reaction follows an incubation of about two weeks; this is of both subjective and objective character and also last about two weeks, then cicatrization occurs as well as depilation. The hair returns slowly and pigmentation and teleangiectasis nearly always remain. The necrotic type develops a few days later than the bullous form and requires months for its cure. He states that this type reminds one of the stationary form of gangrene which is known in Europe as "glacier gangrene." In ten thousand examinations no patient was burned. Dr. Beck reports his personal experience in being burned on the dorsum of the right hand

nd three other cases in his series. As to e causation of the burns he states that the peculiar chemic influence of the Rontgen light on the tissues is so exerted that the nutrition of the cells is impaired. It is only when this impairment has reached a certain degree that the burns occur, and these are influenced by the power and amount of the Rontgen light as well as the personal susceptibility. The therapeutic application of the rays now includes a large number of diseases, among which may be mentioned hypertrichosis, favus, eczema, psoriasis, rosacea, acne vulgaris, and prurigo. He believes that there is no doubt whatever that the Rontgen-rays possess bactericidal properties, and he gives it as his opinion that it would be well worth while further to study the effect of the rays upon tuberculous foci. He believes the assumption is well grounded that a favorable influence is exerted by the rays, for their action is bactericidal as well as inflammatory. He recommends that healthy skin surfaces should be protected by tin foil or lead plates and the face by masks of the same material during the process of irradiation. The treatment recommended for accidental burning in no wise differs from that of ordinary burns.

Polyrrhymenitis.

Dr. J. C. Verco (Anstralasion Medical Gazette, Sept. 20, 1901) says that polyorrhymenitis is not really a disease, but only a group of symptoms; and the causing disease has in every instance still to be determined after the group has been recognized.

The serous membranes included under this term are the pleuræ, the pericardium, and the peritonæum. The affection may be acute, sub-acute, or chronic.

The causes of the acute form are (1) the diplococcus of pneumonia, causing pleurisy (generally with pneumonia) and pericarditis, or empyema and pericarditis; (2) the streptococcus or staphylococcus of pyæmia and septicæmia, causing double empyema and purulent pericarditis, or purulent peritonitis; (3) the rheumatic poison, causing pericarditis and pleurisy; (4) the tubercle bacillus, causing pleurisy and pericarditis, or pleurisy and peritonitis. This more frequently sets up a sub-acute or chronic affection than an acute one.

The sub-acute or chronic form often begins in one sac, but, after an interval, varying from a few weeks to some months, invades the others. The sequence of invasions, in order of frequency, is said to be (*a*) the peritonæum, then the pleuræ, especially the right; (*b*) the pleuræ, then the peritonæum; (*c*) one pleura, then the other; (*d*) one pleura (generally the left) then the pericardium; (*e*) one pleura, then the peritonæum, then the other pleura.

Picchini and the Italians say that these sub-acute and chronic forms are practically always tuberculous. Taylor confesses that they often are, but asserts that, in many cases, neither during life nor after death is there any proof of the presence of tubercle.

The diagnosis of polyorrhymenitis may be regarded as two-fold—namely, its separation from secondary non-inflammatory serous effusions, and the determination of its cause.

Effusions into one or both pleuræ, the pericardium, and peritonæum, are quite common events in advanced disease of the heart, of the kidneys, and of the liver. The discovery of any of these complaints, sufficiently severe to occasion such effusions distinguishes them at once from polyorrhymenitis.

The determinations of its cause may be very easy or very difficult. In the acute forms a remembrance of the possible causes —namely, pneumonia, pyæmia, rheumatism, and tubercle, may be sufficient to indicate the actual origin. The first would be diagnosticated by the accompanying inflammation of the lungs; the second by rigors, arthritis, an evident explanation—*e. g.*, a wound; the third by joint affection without rigors, acid sweating, endocarditis, previous attacks of rheumatism; and the fourth perhaps by some external tuberculous manifestation or by pulmonary affection.

In the more chronic forms differentiation may be at times impossible. If the dictum of the Italian school is excepted, that all sub-acute and chronic cases are tuberculous, the matter is absolutely simple. But if we do not give in our adhesion to this theory, can we distinguish between the tuberculous and the non-tuberculous forms? Pyrexia and emaciation favor the supposition of tubercle, but are not data sufficient to establish such a diagnosis; for the fever may subside, the health and strength be regained, and the effusions completely disappear. If there is persistent diarrhœa, even though it be mild, the probability of tuberculosis is greater. If there are physical signs of apical pulmonary disease, the tuberculous nature is almost, if not quite, certain.

He suggests a slight extension of the term polyorrhymenitis. This usually includes only the pleuræ pericardium and peritonæum. But the arachnoid membrane of the brain and cord is a kind of serous sac; and so a tuberculous meningitis, associated with an ascites, would fall under this head-

ing. This recalls Dr. Marten's case [reported] of ascitic peritonitis with subsequent death from meningitis. So we may have diplococcal meningitis complicating a pleuro-pneumonia.

The recognition of the group of symptoms does not aid much in distinguishing the various causative diseases from one another, and hence is of very little value, especially in the acute form. In the subacute or chronic it may be a convenience and of some advantage by preventing us from concentrating our attention too exclusively upon one of the combined inflammatory effusions to the relative neglect of the others, and so from commiting errors of diagnosis such as ovarian tumors, malignant disease. It may also save us from too gloomy and unfulfilled prognoses; for we have learned the possibility of complete recovery from these primary combined effusions, even without "letting daylight into them" by operative interference.

Some Points in the Prognosis of Mental Disturbances.

Haslette (The London Lancet) contends that the majority of cases which come to the general practitioner will probably prove to be suffering from mania or melancholia, because nearly all the forms of chronic insanity begin with one or other of these conditions. The prognosis is, as a rule, most favorable in those cases in which the onset is sudden and marked by violent excitement, raving speech, and sub-consciousness to surroundings. A case with an obscure indefinite onset, running a prolonged insidious course, is not apt to recover. A neurotic or insane ancestry does not necessarily militate against recovery, although predisposition to relapse may occur. When the patient's general health is poor, this makes the prognosis more favorable, because with the improvement of his physical condition his brain will also clear. When the general health improves and his brain does not begin to clear, the prognosis is less favorable. When the delusions are very numerous and changeable, we may feel more hopeful than when they are fixed. Hallucinations of sight have little significance. Those of an auditory character generally pass away as the acute symptoms subside, but when they persist for over a year, the condition is likely to become chronic. Hallucinations of taste and smell seem to indicate permanent brain injury and render the prognosis extremely grave. The author has never known a case to recover which presented hallucinations of taste and smell. Acute delirious mania requires prompt and vigorous treatment in order to save the life of the patient. He states that puerperal mania is the most common and most curable variety of mental disorder. The insanity of adolescence, particularly in girls, shows a peculiar disposition to relapse, but recovery is common. A definite cause, a definite onset, and early treatment, all favorably influence the prognosis of melancholia. The majority of the cases which recover do so within the first twelve months and only five or six per cent. of the unimproved after that period ultimately recover. The insanity caused by alcohol offers a favorable prognosis if the poison can be cut off, which is very difficult to accomplish. He states "that we should never readily condemn a patient as suffering from dementia after an acute mental attack. There is a period of exhaustion and reaction after a brain storm and the patient is stuporous and restless. He cannot employ himself. He is careless, perhaps dirty, in his habits, his volition is weak, and he has no self confidence. The condition is very much like true dementia, but the cloud will pass, the paralysed energies will revive, and a good recovery will ensue. This condition has deccived me—let it not deceive you—into making a prematurely gloomly prognosis."

The Early Appearance of Laryngeal Tuberculosis.

Curtis (The Laryngoscope) discusses the early appearance of laryngeal tuberculosis dealing first with the manner of infection, and states that the bacilli can reach the larynx either by the lymphatic and blood-channels, or by direct invasion of the epithelia cells. The writer does not believe that tubercle of the larynx exists as a primary condition. As regards the immunity of the larynx in late pulmonary tuberculosis he suggests that the toxins may render the larynx less prone to infection. He mentions the fact that lymphoid tissue is a favorite abiding place for tubercle bacilli, and that the pharyngeal lymphatic ring is sometimes the point of entrance of the bacilli into the system. Often the laryngeal condition antedates the presence of bacilli in the system, and in several of the author's cases the only suspicious conditions present were a sluggishness of movement of the vocal cords, and a morning temperature subnormal to the extent of 1 to 2 deg. Other early signs of the disease are a slight swelling of one chord, with persistent congestion and marked vascularity of its covering mucosa, a feeling of languor and debility out of proportion to the lung involvement, crenation of the interarytenoid spac, and submucous yellowish-gray

spots in this space and in the arytenœpiglottic folds. It is in these early stages that submucous injections of guaiacol, etc., are of great value. The author relates a case in which there was a sessile submucous papillomatous neoplasm starting from the arytenoid and covering half the cord longitudinally. The growth was treated by lactic acid and curetment. The sputum of this patient afterwards developed bacilli and death from tuberculosis was the final outcome.

Intestinal Tuberculosis

Lartigan (Journal of Experimental Medicine) says that chronic hyperplastic tuberculosis, has been noticed of recent years and is distinctly characterized by its affecting various segments of the intestinal tubes and by usually a considerable degree of thickening of the intestinal wall. He reports a case in full detail and disscusses the condition generally, pointing out the gross and microscopic lesions, its point of predilection, especially near the cecum, the influence of sex, occupation, various diseases, etc., and the question whether it is primary or secondary to pulmonary disease. The case he reports, is undoubtedly a primary case; there was no evidence of the presence of a former pulmonary tuberculosis. The symptomatology is given in general terms at the close of the article, indefinite onset, dyspepsia, vomiting, abdominal pain, possibly tympanites, later alternate diarrhea and constipation and occasionally persistent diarrhea; loss of strength and weight, evening rise of temperature, etc., are the characteristics of the earlier stages. With time the abdominal crises becomes accentuated and the weakness very great. Some patients suffer from recurring colic, acompanied by vomiting and constipation. the area of greatest tenderness is usually within the right iliac fossa where the symptoms ofo bstruction usually appear. Later the clinical picture is more and more definitely that of chronic intestinal obstruction; thus in carcinoma there may be various local abdominal distentions, some tenderness and possibly tympanites, and dullness usually present directly over the tumor. In the rectal form the hemorrhages are characteristic from the start in a large proportion of cases and stenosis develops later. As regards treatment, most cases of reported resected cancer of the regions affected are probably hyperplastic tuberculosis The condition is a surgical one. Extirpation of diseased tissue promises good results in a large proportion of cases.

Uremia.

Bradford (The Practitioner) defines uremia as a toxic condition usually arising in cases of acute or chronic renal disease. Like acetonemia, may be the first symptom that directs the attention to the existence of a serious underlying disease which has not produced obvious symptoms up to the time of the onset of the final toxic state. It may also arise as a sequel to operative interference in patients suffering from the chronic diseases that give rise to this condition. The condition may occur in the course of the chronic diseases liable to be complicated by them as the result of indiscretion of diet. The view that uremia depends on the sense of toxic substances in the blood has not received quite the same degree of acceptance as the view that acetonemia is due to such a cause. Pathologists,however, have been unable to correlate uremia definitely with those forms of renal disease in which high tension is the leading feature, and, further, the cerebral edema required by Traube's hypothesis has by no means been found at autopsy. The pathology of the condition can be investigated from both the experimental standpoint and that of clinical medicine.

Dr. Bradford details the experiments which have been performed for the purpose of determining the manner in which uremia occurs, including the symptoms which follow the double nephrectomy, the removal of a large quantity of renal tissue, the symptoms produced by calculous obstruction, and the toxicity of the urine. The author discusses the effects of renal disease on the metabolism of the body. Dr. Bradford discusses the theory of the effect of the internal secretions of the kidney, but he does not believe that there is any satisfactory evidence to confirm the hypothesis that uremia is dependent on the arrest of an internal secretion. The author considers the chemical state of the blood and fluids of the body generally in uremia. They are loaded with extractives, and it is no uncommon phenomenon for the blood to contain 0.5% of urea instead of the normal 0.15. A very considerable amount of further work is required before it can be definitely stated that the disintegration of the tissues leads to the production of toxic bodies capable of causing the clinical features of uremia. The only securely established facts, in the opinion of the writer, at the present times are, that mere retention of the normal constituents of the urine is not capable of producing uremia; that in uremia there is an extensive disintegration of the proteid tissues of the body; and that although in many cases of uremia there is in the final-

stages some suppression, partial or complete, of the urinary secretion, this is by no means invariable, and that certainly fatal uremia may be seen with an abundant secretion of urine. From the clinical point of view, uremia may be divided into the acute, the chronic, and the form described as the latent. These forms he discusses laying especial stress upon the cutaneous eruptions of very different types which are not infrequently present in uremia. The prognosis and treatment are also considered. Treatment with renal extracts either prepared from the kidney or from the serum of the renal vein, as has been used by some observers, is not one which has afforded any definite evidence of its utility.

Early Diagnosis of Pulmonary Consumption, with Especial Reference to the Value of Tuberculin.

Latham (The London Lancet). The points that he insists upon in the early diagnosis of pulmonary tuberculosis are as follows:

1. When we find diminished resonance and increased resistance to the finger associated with the presence of persistent crepitations or fine rales in those situations in which tuberculosis usually starts in the lungs, namely, the apices of the upper lobes, more especially towards their posterior aspect. 2. When the symptoms are suggestive of tuberculosis and tubercle bacilli are present in the sputum, though the physical signs of the lungs are absent. 3. When hemoptysis occurs in cases, to any extent whatever, where there is no evidence that bleeding comes from the upper air passages or is dependent upon some morbid condition of the heart or other diseases within the chest. 4. When there are suspicious signs in the lungs with tubercolous disease elsewhere in the body. He illustrates these different points, calling attention particularly to careful research for trival causes of hemoptysis. The other methods, such as agglutination of tubercle bacilli by the patient's serum, x-ray examination, etc., are not considered entirely reliable, but where the disease is so slight that the diagnosis can not be made on physical signs, or any tubercle bacilli found, he believes that one, two or three small injections of Koch's old tuberculin are absolutely free from danger. The value of this reaction is not absolute, but we may compare it with the Widal reaction in typhoid fever. The writer thinks that we have in it a very valuable means for making a positive diagnosis in a large number of cases which present suspicious symptoms and signs at a much earlier stage of the disease than we can by any other means.

Primary Intestinal Tuberculosis in Children--Its Relation to Bovine Tuberculosis.

Bovaird (Archives of Pediatrics) believes the evidence that tuberculosis milk has produced tuberculosis in children to be scanty, twenty-two comprising the total number of cases in which the relation between the milk and disease in the child is fairly clear. The foreign reports, although quite numerous, show a greater number of cases of intestinal tuberculosis than the American, although the number is not very much in excess. The English reports alone show any considerable number of cases of primary intestinal tuberculosis. He lays great stress upon the result of the autopsy findings at the Foundling Hospital of this city. This institution regularly has 2,000 children in its care, one-third kept in the institution, and two-thirds farmed out. His data, then, are the results of mixed cases, some reared in the hospital and some under the ordinary conditions which prevail among the children of the poor in tenements. The post-mortem records of this institution show 369 cases of tuberculosis and only five of primary intestinal tuberculosis. This represents 2 per cent. of definite primary intestinal infection out of all the cases of tuberculous children. From these facts primary intestinal tuberculosis appears to be a very rare condition among children in New York, and Dr. Bovaird considers the evidence which connects tuberlosis in children with tuberculous milk very scant.

Acute Suffocative Pulmonary Edema.

Stevens (Lancet, January 11, 1902), gives a report of a case of acute suffocative pulmonary edema which occurred in a woman, 38 years of age. She was admitted into the Glasgow Royal Infirmary on January 29, 1901, at 2:30 a. m., in a somewhat collapsed and dyspnetic condition. She had been in her usual good health at 11 p. m., on the previous evening. Her first symptoms which appeared shortly after 11 o'clock, difficulty in breathing, became rapidly worse. A frothy expectoration soon followed and a lancinating pain was experienced across the front of her chest. On admission to the hospital her face was flushed and her lips livid and she was expectorating a whitish frothy sputum. The respiration numbered 34 per minute. The pulse rate was 105, and the temperature registered 96.4 deg. F. Fine and medium moist rales were heard on auscultation of

the chest. At 9 a. m., the patient was able to lie down and from that time she continued to improve.

He reports another case of acute edema of the lungs which occurred in a man, 40 years of age, who was admitted into the Infirmary on December 22, 1899. The patient was found to be the subject of aortic regurgitation and obstruction and of mitral regurgitation and also suffered from acute nephritis. These conditions were complicated with attacks of suffocative pulmonary edema. The attacks of edema would come on suddenly. Great dyspnea, cyanosis of the face, rapid pulse-rate, and expectorating of frothy material, were the symptoms. The patient died on January 27, 1901. A post-mortem examination was made. A sub-acute tubular nephritis, chronic changes in the aortic valve, stenosis of the mitral valve, edema and congestion of the lungs and congestion of other organs, were found. The author mentions that acute suffocative edema of the lungs may be a primary or secondary condition. The symptoms of either form are similar. Dr. Stevens emphasizes that the symptoms are so striking that there is, as a rule, little difficulty in recognizing their significance. The onset is always sudden, without warning the patient is suddenly seized with great difficulty in breathing. There is a sensation of intense oppression behind the sternum and expectoration of a perfectly white finely frothy watery sputum occurs. Cough is slight or absent. Fever is not present as a rule. The pulse is very rapid and fine moist rales are to be heard over the chest. The face assumes an ashen gray appearance and the expression is anxious. The sputum may become blood-tinged after an hour or two. As much as 1½ pints of frothy fluid may be expectorated in course of five or six hours. With reference to the treatment of this condition he advises free stimulation by means of brandy injected into the rectum and the use of hypodermic injections of strychnine and digitalin. The author states that opiates in any form are to be avoided, as they tend to prevent the expulsion of the fluid from the pulmonary alveoli. If free stimulation is not followed by a subsidence of the symptoms, blood letting may be tried.

Early Extrauterine Pregnancy.

Carwardine (British Medical Journal, Jan. 11, 1902) mentions the importance of a correct diagnosis of early tubal pregnancy and immediate operative treatment. Early tubal pregnancy may be said to comprise cases up to the fourth month, before which time rupture naturally takes place. The earlier cases—those during the first six weeks—are characterized by suddenness of onset, often an absence of probable signs, and gravity of the issue. But there are, as a rule, three prominent facts: A history—that of unusual delay in menstruation in a married woman, followed by an irregular bleeding of some sort a week or two later; a symptom—that of sudden acute abdominal pain, with sickness and collapse; a sign—that of internal hemorrhage. The last condition is recognizable by the shock common to it, by the aspect and pulse, which are the true clues to progressive anemia. The pallor of the perfectly conscious patient strikes you at once. The lips, gums and conjunctivas are almost as white as the surrounding skin, and the finger nails appear white throughout. The tension of the pulse is low and decreasing in strength. The patient is bleeding to death, and there is but one thing to do—tie at the bleeding point. The symptoms demand immediate operation. In cases of from six weeks to three or four weeks duration, there is the additional symptom of a tumor beside or back of the uterus. This may clinch the diagnosis. Having diagnosed the case since, surgery can now save over 95% of cases, there can be but one possible procedure. Adding the statistics of several large groups of operations, he finds that of 279 patients operated upon, 269 recovered and 10 died, a mortality of 3.6%. Clearly, operation for tubal pregnancy is as safe as delay is dangerous, and to diagnose tubal pregnancy is a just demand for that treatment which gives the patient the best possible chance—early operation.

Curettage.

Hyde (American Journal of Gynecology and Obstetrics) believes that the limitations for dilatation and currettage are as follows: As a possible factor to overcome steriliy: The operation is only warranted when based on tenable premises, the competency of the husband, the absence of any serious adnexal lesions, incomplete development of the genital organs, vaginismus, or malformations, Excluding or correcting these, the operator should certainly dilate or curette. It also offers relief in many cases of menorrhagia or metrorrhagia and is of great benefit for increasing the patency of the canal in some small anteflexed uteri. For securing scrapings for diagnostic purposes it is of decided value. In removing retained secundines the question is whether to employ a sharp or dull curette. He prefers a large sharp one, and has seen as profuse a hemorrhage follow the use of the blunt curette as the other. As a preliminary to certain operations on the uterus before a

trachelorrhaphy, before hysterectomizing cancerous uteri, or section to relieve posterior adherent uterine displacement, etc., it has its value, but he condemns especially the rough curette before trachelorrhaphy. Hyde does not believe in packing the uterus after a simple curettage. The only time he packs is in the presence of persistent or alarming hemorrhage after removal of retained secundines; ordinarily there is no need for it. For removing septic foci, its utility has been much debated. If general sepsis is present he doubts the advisability of the curette. If there is septic material, pus foci, or retained placenta, it would seem that they ought to be removed by gentle curettage, not attempting to reach "hard pan." A few of the contra-indications are inexperience, and the presence of inflammatory conditions. He wants to say that it is not a simple operation, but one that may be attended with the gravest dangers; that not enough attention is directed to pelvic conditions before curettage; that the indications for it are positive and the contra-indications should always be considered. Finally, that the operation demands experience, thorough asepsis and knowledge that severe accidents may occur at any moment even to the best operator.

Observations on the Surgical Treatment of Obstructive Jaundice from an Experience of Over 2,000 Cases.

Robson (British Medical Journal, Jan. 18, 1902) considers the following conditions in all cases of chronic jaundice: (1) Common duct cholelithiasis; (2) chronic pancreatitis; (3) simple stricture of the common bile duct; (4) inflammatory adhesions causing pressure on, or stenosis of the hepatic or common bile ducts; (5) hydatid disease of the liver pressing on or discharging into the bile ducts; (6) gummata implicating the duct; (7) chronic catarrh of the bile ducts; (8) cancer of the common bile duct; (9) cancer of the head of the pancreas; (10) cancer of the liver associated with jaundice either due to catarrh or pressure; (11) cirrhosis of the liver; (12) other rare conditions such as aneurysm of the hepatic artery or of the aorta, and other tumors of the liver, gall-bladder, pylorus, kidney, or intestine pressing on or occluding the common bile duct. Surgery holds out a good prospect of cure in the first five causes enumerated; medical treatment is advisable for causes 6 and 7; in the remaining conditions relief can only be hoped for whether the treatment be medical or sugical. A painless onset of chronic jaundice is supicious of chronic catarrh dependent on cancer of the liver or of occlusion of the hepatic or common duct by the growth, and if this be associated with distension of the gall-bladder and rapid emaciation, cancer of the head of the pancreas may be found. An acute attack of pain in the upper abdomen preceded by the so-called spasms and followed within 24 or 36 hours by jaundice is strongly suggestive of cholelithiasis, especially if accompanied by chills, fever and sweats. A large liver is much more common in cancer than in gall-stones although it may be present in either; in cancer nodules may be palpated and in cholelithiasis an elongation of the right lobe of the liver can often be felt. Ascites strongly indicates malignant disease and as a rule negatives any radical operation on the bile ducts. The jaundice of gall-stones is rarely continuous, that of a growth steadily increasing or tends to become absolute, especially in cancer of the bile duct or of the head of the pancreas; the jaundice of malignant disease runs a short course, whereas the jaundice of gall-stones may last several years. Fat in the stools and sugar in the urine suggest pancreatic trouble. After the abdomen has been opened adhesions around a contracted gall-bladder points to gall-stones. If no gall-stones be found, but the head of the pancreas be swollen and hard, the surgeon should not hastily pronounce the case one of cancer even if enlarged glands be present, for the condition may be chronic pancreatitis which is curable by cholecystotomy. Tenderness one inch to the right and one inch above the umbilicus is as suggestive of gall-bladder trouble as tenderness of McBurney's point is suggestive of appendicitis. Before tearing through dense and extensive adhesions it is well to inspect the liver and adjacent parts to be assured of the absence of secondary nodules of carcinoma. A hemorrhagic condition is common in case of chronic jaundice; if not excessive it may be controlled by calcium chloride, or possibly suprarenal extract or gelatine; if severe it will seriously add to the risks of operation. Elderly patients with heart or kidney disease should as a rule be content with medical treatment. Surgical treatment depends on diagnosis. If the diagnosis be doubtful an exploratory laparotomy is advisable; if malignant disease be positively diagnosticated, with a few exceptions where it is possible to remove it, operation can do but little good; if gall-stones or one of the first five enumerated causes of jaundice, operation is demanded. Robson has operated upon 212 cases suffering from obstructive jaundice; of these 182 recovered, showing a mortality of 13.6%; 60 were under the subjects of ma-

lignant disease either of the liver, the bile ducts or of the pancreas, and of these 46 recovered from operation, a mortality of 23.3%; of the 152 operated upon for some nonmalignant cause, 135 recovered, a mortality of 9.8%. Nearly every case recovering is a life saved since in the greater number, whether arising from gall-stones, hydatid disease, chronic pancreatitis, or stricture or adhesions obliterating the lumen of the bile ducts, death after more or less prolonged suffering is the usual termination. The greatest dangers from operation are hemorrhage and shock, and the two next serious, exhaustion and sepsis. Up to December, 1899, his mortality was 16.4%, whereas since that time, the mortality has been 14.2%. The mortality of the choledochotomies has sunk from 14.5% to 7.4%. This improvement is due to greater experience, greater accuracy in diagnosis, better selection of cases, and improved technic. To combat hemorrhage calcium chloride should be administered for at least two days before the operation, all adhesions should be ligatured whenever possible, all bleeding points should be caught and tied, and oozing should be controlled with gauze packing.

Conservative Element in Mastoid Surgery.

Pyle (Medical News, January 18, 1902) gives his ideas of mastoid surgery as follows: To council delay with the use of antiphlogistic measures in acute mastoid inflammation is wiser than to encourage hasty operative procedures under blundering conceptions. The truth of this is most apparent to those who see the result of efficient surgery, and emphasize the necessity for careful instruction in such measures as all can apply with equal celerity and exactness. In no other ailment is it more imperative to know the significance of early rest and medication to reduce arterial tension, the importance of paracentesis to unload obstructed capillaries, the value of the ice-coil to retard bacterial activity, the wisdom of thermal douching to prevent mural implantation, to relieve congestion, edema and pain. In no other ailment is it more imperative to mitigate suffering for a reasonable period of 24 hours. Even in recourse to analgelics, the periosteal character of the pain and the fact that temporary relief is sometimes the beginning of convalescence should be borne in mind. While observing the patient, every local, general and detergent effort should be made to abort operative necessities. The intelligent application of such is not so confusing as poor surgery, nor should an occasional failure establish a general abolition.

The Treatment of the Paralytic Attacks.

Pick (Philadelphia Medical Journal, Feb. 8, 1902) advocates prophylactic treatment directed against the effects and complications which occur sooner or later and to which the patient generally succumbs. An attack may be interrupted when due to the irritation of a filled bladder, a filled rectum, or some other pathologic irritation like an unobserved furuncle, and by any slight febrile affection, as in the attacks of eclampsia of children. Ergotin injections are condemned. In repeated epitheliform attacks he recommends chloral enemas, two to three grams, or ether inhalations may be employed in order to prevent injury, which may give rise to phlegmons and septic inflammation. Care should be exercised to prevent acute bedsores, devoting particular attention to the extremities in which pressure sores and blisters may occur. The greatest caution is required to prevent hypostasis; systematic cleansing of the entire body is essential. It is necessary to employ such measures as will prevent autoinfection from the various portions of the alimentary canal. The mouth and nose should be carefully cleansed with potassium permanganate or some diluted mouth wash, and high enemas of either pure water or a boric acid solution should be repeated at regular intervals. All nourishment, he says, should be so administered as to reduce to a minimum the danger of deglutition pneumonia. Broths are preferable, but if liquids cannot be swallowed without giving rise to coughing, then the nourishment should be given per rectum, in which event the enema should be bland and small in quantity, not over 100 grams of fluid, as these precautions will facilitate its retention. He believes daily rectal injections of normal salt solution are of value, but if these are not retained, they can be supplemented by hypodermoclysis. If the methods of rectal nourishment should prove persistently unsuccessful, and if the deglutition of fluids is still difficult, it will then be necessary to feed by means of the sound; but this procedure should be excluded as far as possible by the general physician, because it is difficult and often harmful. The treatment herein described with suitable modifications is indicated and may be used to advantage in all other protracted comatose conditions.

Fractures of the Upper Third of the Femur.

Hibbs (New York Medical Journal, Feb. 1, 1902) says that in such cases the long traction hip-splint, such as is used in the treatment of hipjoint disease, offers a means of applying direct and constant extension

which is always in the same line, and may be made to control muscular contraction absolutely. It is direct and constant because it is not affected by changes in the position of the patient or dependent for its force upon the weight of the body, and the degree is absolutely under the control of the surgeon. While it is more efficient with the limb fully extended, as it is used in the treatment of fractures of the shaft of this bone lower down, than when the limb is flexed, even in these cases it is less so than in the case of the hip-splint extention. Coaptation splints are applied as follows: Two steel bands are attached to the sheath of the splint, one running posteriorly half round the thigh near the groin, and another at the middle point of the thigh, with a felt or leather backing resting upon them, completed anteriorly by two webbing bands. This splint is applied as is done in a case of hipjoint disease, with the adhesive plaster extending to the point of fracture. The patient should be anesthetized, not only because it saves the patient suffering, but because it relieves muscular spasm entirely and it never recurs to the same degree afterward, because its cause, the irritation from mobility at the point of fracture, is removed. The limb should be held at about 135 deg. by means of an inclined plane. Photographs of a patient under treatment by this method are given, and a case is reported.

Surgical Hints.

The following surgical hints are from the January issue of the International Journal of Surgery:

In cold weather, when making use of chloride of ethyl for local anesthesia, it is well to warm the part beforehand. This will secure better evaporation and more complete anesthesia. It also prevents waste as a much smaller amount of the chloride of ethyl will produce the required degree of anesthesia.

Never use sutures larger than will suffice to hold safely the vessels or pedicles they are to constrict. Even when absorbable they are foreign bodies.

If there is no evidence that a bullet has perforated important organs, such as the hollow viscera, or that it is causing hemorrhage, or that it is producing dangerous pressure, no attempt at extraction should be made. The wound is to be treated antiseptically. If sepsis should occur, the general rules governing the treatment of septic foci must be applied.

In a wound occuring in some place where no aseptic dressings can be procured, it is better to leave it exposed to the external air than to cover it with probably infected substances. A protective crust or scab will thus rapidly be formed.

Whenever tendons are sutured it is necessary to maintain the limb in such a position that the muscles whose tendons have been rejoined shall be as perfectly relaxed as possible. In suturing nerves the parts should be kept absolutely at rest for a period of at least three weeks.

A surgeon who keeps on breaking small ligatures when tying minor blood-vessels gives evidence of the fact that he is using an altogether unecessary amount of force, at least ninty-nine times out of one hundred.

Club Foot.

McKenzie (The Physician and Surgeon) claims that the proper time for operating is about the time the child begins to walk. Then the steps to be taken will depend much upon the resistance offered. In some cases the correction may be fully rectified by the hand and fixed dressing. Assuming always that the deformity of the foot *per se* has been over-corrected, attention should be given to the equinus, and here section of the tendo achillis is almost invariably required. The author describes his method of cutting through the tendon subcutaneously and the plantar fascia, the internal lateral ligament and sometimes the long plantar ligaments. When the skin offers definite obstruction to further replacement he refrains from further correction and applies fixation dressing and after several weeks it is ready to yield, and another correction may be made. Dr. Phelp's open section is not, he thinks, advisable. In any case the most frequent operation required than correction that cannot be made readily with the hand is severance of the plantar fascia. This should be done close to the os calcis attachment and the long plantar ligament may be reached and cut in the same operation where one enters behind the arteries and hemorrhage is not troublesome. If the obstruction appears to be much more toward the inner border of the foot the tendon of the tibialis posticus may be cut simultaneously, which must be done just below and anterior to the internal malleolus. The next obstruction most likely to need the attention is from the internal lateral ligaments of the calcaneoscaphoid. The tenotome may be so introduced as to pass parallel to the artery, and extensive section be made without causing much hemorrhage. This is all the knife is required for in the vast majority of cases. Manipulations with the hand or wrench usually suffice; the latter may be required in adults. Great importance is attributed to the dressing. Ab-

sorbent cotton should be applied so that the plaster dressing can be put on without causing abrasion, and the foot held in the position as nearly approaching correct position as possible. The pressure should be even to avoid sloughs and the dressing allowed on from two to six weeks, when it should be removed, and after a couple of days a second one applied, the two days being utilized in removing the old epithelium by bathing. Nearly always in this way, he says, the deformity can be corrected in two to four dressings, and after the removal of the last one boots should be worn in daytime, and night braces every night.

Result of X-Ray Diagnosis and of Operation in Injuries for Foreign Bodies in the Eye.

Sweet (Philadelphia Medical Journal. Feb., 1, 1902) has examined 102 eyes with the x-ray to determine the presence or absence of foreign bodies, of which 65 showed a foreign body in the eyeball or surrounding tissues. From these cases he concludes as follows. The Rontgen rays offer the most certain methods of detecting and locating foreign bodies in the eye; the position of the foreign body should always be determined before magnet extraction is attempted, because frequent insertion of the small magnet into the vitreous in the hope of finding the metal injuries the eye, and renders later attempts at extraction difficult, while the employment of the large magnet is not without danger when the position of the body is unknown; early extraction offers the best chance of saving the eye. When the tract of the body is through the cornea and lens, its position in the vitreous will indicate whether less damage will be done by removing the metal through the entrance wound or through a new opening in the sclera close to the indicated location of the body; an extended future employment of the larger magnet in cases of steel in the vitreous chamber to draw the metal to an opening in the sclera, after its position has been accurately determined, will probably achieve better visual results than have been obtained in the past with the small magnet introduced in the vitreous; iron or steel which has remained in the eyeball until a fibrocellular covering envelops it cannot be dislodged with the magnet; extraction with forceps, and the employment of normal salt solution to replace any vitreous lost has resulted in several instances in eyeballs of good cosmetic appearance, and is an operation worthy of trial; forceps extraction must also be employed when the body is of copper or glass, and extraction is a safe operation and under proper precautions is free from dangers panophthalmitis or meningitis.

Radical Cure of Inguinal and Femoral Hernia, with a Report of 845 Cases.

Coley (Annals of Surgery) advocates operation in all adults under 50 years of age, excepting large irreducible hernia or in large reducible hernia when replacement of the gut interferes with respiration. The author rarely operates under 4 years, and after the fourth year truss treatment is tried for one year before operation is considered. Adherent omentum or fluid in the hernial sac calls for operation. Dr. Coley slightly modifies the Bassini method by using chromicized kangaroo tendon instead of silk for sutures and by inserting one stitch above the cord. A dressing of 10% iodoform and moist 1 to 5000 bichloride gauze is placed on the wound, and in children a plaster of Paris spica is applied. Rubber gloves are considered a valuable adjunct to primary healing. In operating for the radical cure of inguinal hernia in the female the round ligament is neither resected nor transplanted, but is allowed to drop back in the lower angle of the wound. Cutting the internal oblique weakens the canal and increases the danger of relapse. In the cure of femoral hernia the purse-string method is employed. Two deaths occurred, one from ether pneumonia and one from intestinal obstruction. In 1334 cases collected by Galeazzi, 2.16% relapsed. Of the 54 operations for femoral hernia in Coley's series, one relapsed. Of the 500 cases of inguinal hernia that were traced, 6 relapsed. In the 30 cases that were associated with undescended testicle, that organ was not removed in a single instance. By allowing the cord to come out of the lower angle of the wound, one-half to three-fourths of an inch will be gained in the length of the cord. There were four operations for interstitial hernia, four for inguinoperineal hernia associated with perineal testicle, and 32 for hernia of the cecum and appendix.

Typhoid Spine.

W. J. Taylor (Philadelphia Medical Journal, December 28, 1901). Since the appearance of Gibney's original paper in which the "typhoid spine" is described as a peri-spondylitis, various opinions have been advanced as to its true nature. Three conditions may arise after typhoid referable to the spine: First, the true peri-spondylitis of Gibney; second, a painful condition of the muscles due to strain or injury; third, the hyper-sensitive neurasthenic spine.

Although most authors do not recognize these distinctions and think that they all border on neurasthenia, Dr. Taylor believes that in certain cases there is a definite well-pronounced pathological condition involving the periosteum, ligaments, and deep fascia of the spine—a distinct surgical sequel of typhoid fever. It is recognized that the typhoid bacillus may cause a periostitis which resolves without suppuration, although the latter often occurs. As this has been observed to occur in the tibia, why may it not occur in the spine? In the case cited by the author, an adult patient had an ordinary attack of typhoid lasting nine weeks. A few days after getting up the heavy dull pains in the back began. Examination showed a slight prominence of the spine to the right of the sacrum and in the lumbar region, with numbness extending along the right thigh. Patient was kept in bed for nearly four months on ordinary tonic treatment. Improvement took place rapidly and three months later the spine was perfectly flexible and the thickening had disappeared.

A Case of Recurrent Sarcoma with Apparently Spontaneous Cure and Gradual Shrinking of the Tumor.

Watson (The London Lancet, Feb. 1, 1902) describes the case of a patient who was a strong, healthy woman of thirty-six years, who came under observation simply because a swelling on the back was annoying her, and she wished to have it removed. This tumor was large and pendulous, being attached to the left side of the back by a base nine inches wide and rather less than four inches in vertical measurement; the apex hung down for almost four inches below the lower margin of its attachment to the back, while the upper margin was just below the inferior scapular angle. It was soft but not fluctuant, slightly nodulated, and had the appearance of a lipoma undergoing degeneration; the skin covering the dependent portion was of a dark reddish color. The tumor was regarded as simple, partly because of its character, and partly because its history went back to the patient's chilhood, though it had grown considerably in recent years. It was removed without difficulty. After the operation, hemorrhage was so free that the dressings had to be frequently changed in the first few hours; thereafter they were left for four days untouched. On the fourth day it was observed that the dressings had become tight, and on exposing the back the tumor was found to be almost as large as before operation. In the expectation that this might be due to accumulation of blood-clot beneath the flaps, a portion of the wound was opened up, but no blood could be expressed, even when a director was introduced and worked about inside the wound. It was, therefore, concluded that the swelling was due to a rapid reformation of the tumor. The original specimen had been accidently lost, but at the time of re-formation a piece was removed and pronounced by two microscopists, working independently, to be a mixed round and spindle cell sarcoma A week later the margins of the operative wound began to ulcerate, but when a second operation was about to take place, it was seen that the tumor had attained such a size and was so diffuse in its margins that further radical interference was considered out of the question; the ulcerated edges were, therefore, cut away, and the wound was again stitched up. During the remaining days of her residence in the infirmary the patient looked and felt very ill and weak. A bad prognosis was given and she was dismissed. To the supprise of all, however, she greatly improved, and the growth diminished in size. One year later the patient was seen, and the following facts noted: The general health was excellent. The tumor was much less prominent, and hung like a loose sac, as if almost all its contents had been evacuated. There was slight lividity at the margins, but no pain, except an occasional stinging-like neuralgia in damp weather. The tumor covered about the same area as at the time of dismissal, but consisted of little more than loose skin. The scar of the operation wound was perfectly sound and firm. No pain was caused by free manipulation, and the clothes were worn without discomfort.

Diagnosis Between Acute Appendicitis and Atypical Typhoid Fever.

M. H. Richardson says (Boston Med. and Sur. Jour., Jan. 9, 1902) are pain, tenderness, muscular rigidity and fever. The absence of any one of these symptoms throws doubt upon the diagnosis of peritonitis. No lesion of the appendix sufficiently extensive to affect the peritoneum can possible exist without either pain, tenderness, rigidity or fever. If pain, tenderness and fever are present without rigidity of the overlying muscles, a peritonitis localized about the appendix is at once excluded, though an intra-appendicular lesion may be present. Pain and rigidity without tenderness would throw serious doubt on the diagnosis of appendicitis. The absence of fever alone, the other three symptoms being present, would form the least doubtful combination, for the absence of fever is sometimes conspicuous in really serious local peritoneal infection. The absence of

rigidity must put the surgeon on his guard; he must account for the absence of this symptom before he opens the abdomen. In such a case exhaustive inquiry into the history of onset, previous malaise, prevalence of typhoid in the community and history of the pain itself, must be made. Careful examination of the blood is imperative. Without pain at some time in the course of the disease there can be no acute surgical lesion of the abdomen. The absence of rigidity or tenderness in the presence of fever and pain usually signifies typhoid, or simple continued fever. If constitutional signs in a doubtful case are severe, but local ones hard to establish, Richardson would pospone operation; but when the abdominal symptoms—pain, tenderness, rigidity, with or without distention—call loudly for operation, he would open the abdomen in spite of the possibility of typhoid.

Cocaine Habit.

E. H. Martin, (Medical Times, Jan., 1902) says that the cases of cocaine and morphine habit are generally among white people, while the combined use of cocaine and whisky appears more frequently among the black. The latter two drugs seem to smother all normal sensibilities. Insomnia and anorexia are prominent symptoms and lead to more whisky. The action on the genitals is peculiar. Whether the drug is excreted in the urine, causing anesthesia of the urethra and glans, or whether the sexual centers in the brain are affected is not known, but cocaine always causes the penis to become shrunken and bloodless. Where morphine also is taken the desire is destroyed, but cocaine and whisky markedly stimulate the sexual appetite, erection being, however, impossible, and sexual perversion frequently results. In regard to treatment, the cocaine habit is similar to the whisky habit and can be stopped if the patient has any will power left. A few day's bracing with strychnine is all that is usually necessary, but it sometimes happens that there is great difficulty in giving the victim enough will power. The great increase in the use of coca-cola will undoubtedly lead to there being as many users of these drinks as there are now of coffee, and the effect which the continued use of small doses of cocaine has will probable be more fully understood.

Some Surgical Affections of the Parotid Gland.

Rixford (San Francisco Medical Society, Jan. 14, 1902) said that because of its peculiar anatomic relation the parotid gland was of extraordinay surgical interest, from a pathologic standpoint, it is subject; and from an operative standpoint, on account of its proximity to important structures, its trasmission of important nerves and vessels and the peculiar properties of its secretion. The lymphatic glands of the parotid were all situated within the capsule or fascial sheath of the gland consisting of a superficial and a deep set, and receiving, as they do, lymphatics from wide regions so prone to infections as the eyelids, the external ear, the auditory meatus and the posterior nares, explained many cases of suppurative processes in the parotid region. The excretory duct opening directly into the mouth was considered the most frequent transmitter of pyogenic bacteria into the parotid, probably accounted for by diminished secretion of saliva in fevers, e. g., typhoid, pneumonia, cholera, etc., and after large abdominal operations. In dispensary pratice an eczema of the ear with a painful swelling over the parotid was a common thing. The sheath of the parotid mingling with the peritoneum of the ramus at its posterior border pus might reach the parotid by direct extension from an osteomyelitis or periostitis of the lower jaw. When pus was superficial incision was without risk to facial nerve or carotid, but when deep it was far safer to incise only deep enough to open fascia over the gland and then use blunt dissection. If deep incision was necessary it should be parallel to facial nerve. Cavernous angeioma rarely occurred in the salivary glands, although common just beneath the skin ot face. An ordinary subcutaneous angeioma in the parotid region was not properly an angeioma of the parotid gland and diagnosis as such should be made only when the microscope showed gland tissue between its lobules. In a baby one year old he had removed a true angeioma penetrating deeply into the parotid, which was shelled out with comparatively little difficulty. Opening into the gland was 2½ cm. in diameter and exposed the branching facial nerve crossing the floor of the opening. Primary unions resulted with very slight scarring. The so-called mixed tumor was benign, at the least in the beginning, often lasting 8 or 10 years before becoming large enough to lead the patient to undergo operation. It was among the more frequent tumors of the parotid and might contain cartilage in varying amounts. The writer cited a case of a woman, age 35, with tumor of the parotid; hard, nodular, the size of a man's fist. First noticed 4 years before. Tumor extended down to level of hyoid bone; facial nerve was displaced downward 6 or 7 cm. below normal situation lying in groove between two large nodules of the

tumor. Wound closed with primary union and recovery. Sarcoma as a primary tumor of the parotid was rare and might be any one of the ordinary forms of sarcomata and might be encapsulated, a fact of enormous value in prognosis. The author reported a case of removal of encapsulated sarcoma together with entire parotid gland one year ago with no sign of recurrence at the present time. In two cases of epithelioma of the cheek the inner end of Stenson's duct was removed and communication of the remainder with mouth established. In first case 2 cm. of the duct were taken away, a funnel of mucous membrane was drawn into the wound and fastened to the anterior edge of the masseter muscle, and the end of the duct introduced through its apex and secured with fine silk sutures. Union resulted with no leakage of saliva through wound. The dimple on inner side of cheek caused no difficulty in mastication or from food lodging in it. In the second case excision of nodule required cutting directly through the whole cheek, making an opening 6 cm. in diameter which was sutured antero-posteriorly in order not to limit the action of the lower jaw; 3 cm. of the duct had been removed. A strip of mucous membrane 5 mm. wide was dissected from the edge of the inner wound and brought out around the edge of masseter and united to the remnant of the duct with fine silk suture; union occurred without suppuration in wound in cheek, and the new duct remained open and could be entered with a fine probe.

The Advisability of Removing the Appendix Vermiformis after Suppuration Caused by Appendicitis.

Battle (Lancet, January 18, 1902) reports a number of cases illustrating the advisability of doing the second operation. He says: "I think there is only one exception to the rule that the appendix should be excised in all cases after the patient has recovered from the suppuration, if it was not found possible or advisable to remove it when the abscess was opened. This exception is when the appendix has sloughed off and is lying free in the pus or comes away during the healing of the abscess—not a very common occurrence when the suppuration is localized, but I have found it. It may be held, I think, that the evacuation of pus from an appendix abscess may be safely done through the ordinary incision; that it is not necessary to complicate the operation by any procedure which increases the risk; and that the removal of the appendix at a second operation, when the parts are quiet, will give a better chance to the patient in many, if not most, of the cases than a removal unwisely attempted or persisted in at the first operation. The adhesions forming after inflammation of the surface of the opposed coils of intestine are not necessarily numerus, strong, or vascular; indeed, it is a matter for surprise to find so little change in the normal condition of the parts in many cases."

Surgical Aspect of Diabetes.

Gerster (New York County Medical Association, Jan. 20, 1902) said that it was well known that dogs and rabbits, as compared with man, offer a remarkable immunity to infection by staphylococci; yet, when the pancreas was removed from these animals and experimental diabetes thus set up, the wounds rarely healed properly. In cultivating pyogenic bacteria, Theobald Smith, of Boston, found that these bacteria throve best in media containing between .2 and .5 per cent. of sugar, a percentage almost exactly that found in the blood of diabetics. The surgical importance of the so-called latent stage of diabetes could hardly be too much emphasized. The products of faulty assimilation circulating in the blood of diabetics greatly devitalized the tissues, and led to a condition akin to premature senility, thus leaving the tissues especially susceptible to the invasion of microbes. While wounds generally healed kindly in most individuals, it was well known that all sorts of wounds in a few persons showed a tendency to suppurate. It was possible that these persons were the subjects of latent diabetes, or were in a condition which would eventually lead to diabetes. Furunculosis and carbuncle were relatively very common in diabetics. When excessive sweating and furunculosis were found in diabetics, one would usually be able to detect sugar in the perspiration. Furuncles and carbuncles were most commonly observed in middle-aged persons having glycosuria—in other words, in persons who were not very ill and did not live on a restricted diet. The favorite location for carbuncle was on the dorsum. Early free, multiple incisions were demanded in these cases of carbuncle. Diabetic gangrene followed various slight traumatisms. Under almost any mildly antiseptic application the necrosed layer would be thrown off, and cicatrization would soon take place. If, however, the primary lesion became infected, there might result a more extensive and ill-conditioned ulceration. The treatment should consist of measures directed toward improving the local circulation. The perforating ulcer of the foot seen in diabetics did not differ from that observed in other persons, except for the tendency to

lymphangitis, and phlegmonous inflammation. For obvious reasons, gangrene of a whole extremity was seven times more frequent in the lower than in the upper extremities. In the non-infectious form of gangrene the determining factor was to be found in the existing arteriosclerosis. An early sign of impending gangrene of the limb was the occurrence of numbness or a peculiar painful sensation, coming on after remaining quiet for a short time, and disappearing again on moving about. This evanescent limping in a diabetic almost invariably pointed to the approach of gangrene. Gangrene of the extremities was about four times more frequent in men than in women. Nearly one-half of these patients succumbed, death often resulting directly from the occurrence of diabetic coma. In non-infectious cases of necrosis of the toes, and of the leg, where there was no fever, the limitation of the gangrene was to be sought for by an elevated posture and the maintenance of a dry state as long as possible. When the period of demarkation was well established, no operation should be undertaken without stringent necessity. Often a large part of a toe, or even a whole toe, would be cast off. The degree of arteriosclerosis present must guide the surgeon as to the point for amputation, when this operation was indicated. In infectious cases another factor must be considered, *i. e.*, the necessity of avoiding contact, infection proceeding from the festering and gangrenous area. In such cases the surgeon was often forced to perform a high amputation.

Estimation of the Malignancy of Tumors.

Ewing (New York State Medical Journal) states that there is very little difference in the results obtained from surgical treatment, and he aims to notice here the special points which account for the difference of opinion in regard to the curability of cancer of the breast. In carcinoma one of the most important factors in determining the outcome is the previous duration of the disease. It is very difficult to form an estimate of the age of carcinoma. Another less generally recognized form is that of small carcinomatous focus often existing in non-malignant tumors and these are reported as operations for malignant disease and considered as cured. If we are going to estimate the matter, the question of rapidity of growth should be considered. He recognizes among the carcinomas of the breast one group which retains more or less the adenomatous type, adeno-carcinomata which are met with under three different conditions: 1. A carcinomatous multiplication of cells in the epithelial tufts projecting into larger cystic adenomata. These should be removed early and the operation ought to be in most cases followed by permanent cure. 2. Adeno-carcinoma arising in tumors with dilated spaces in which the extensive multiple cells are confined within the original aveolus. Such tumors seldom involve the lymph nodes and their prognosis is good. 3. A type where it arises in the long quiescent gland by the increase in number and tortuosity of the secreting alveoli producing large lobules containing an excessive number of alveoli in section, while the cell multiplication often bursts the basement membrane, throwing the tumor into the class of adeno-carcinoma. The histologic structure of these indicates a moderate grade of malignancy. All these should be separated from pure carcinomas in prognosis in estimating the results of operation. The remaining group of pure carcinomata commonly described as a small or large alveolar, or encephaloid or tubular carcinoma, and the distinct sub-group of scirrhus, are another matter and he describes their characteristics. The writer has seldom seen a permanent cure of the tubular type in which an extension of the lymphatics measured by inches very likely occurs in a period measured by months or even weeks, although the original tumor may not appear to be growing rapidly. The alveolar on the other hand shows a greater variety of structure and greater in the prognosis. A lessened grade of malignancy may be expected in tumors where the alveolar tendency is permanent and where the cells divide their energies between multiplication and secretion and especially where mucoid degeneration destroys many cells which would otherwise continue to multiply. This last factor has been known to bring to a standstill this growth of glandular carcinoma and if it could be artificially introduced the malignancy migh be diminished. Extreme malignancy must be ascribed, however, to glandular carcinoma in which the cells show little tendency to maintain a distinct alveolar arrangement, or even grow diffusely and the secretory function is entirely lost, the multiplication of cells not interrupted by degenerative changes, and the inflammatory process is exudative rather than productive. In both tubular and alveolar carcinoma the age of the patient and the relation of the growth to pregnancy, lactation and the menopause are of prime importance in determining prognosis. The most malignant cancers of the breast are alveolar carcinomata, first noted during or after lactation, while there is an increasing tendency toward the scirrhus type as the subjects pass the menopause.

In scirrhus type the grade of malignancy is always less than with the tubular variety and most of the alveolar types. Yet the lack of a prominent localized tumor secures for many of them immunity from operation until there is extensive involvment of the lymph nodes. Hence, the duration of a fibro carcinoma is the chief factor determining the result of operation. Dr. Ewing calls for the co-operation of surgeons and pathologists in this matter to determine more accurately the relation of progress to histologic structure in these two classes of carcinoma of the breast.

Surgical Treatment of Dysmenorrhea.

H. D. Fry (Amer. Gyn. and Obst. Jour. Dec., 1901) says that impaired general health and normal pelvic organs, stenosis of the cervix, endometritis, displacements of the uterus, diseases of the appendages with impaired general health, or a combination of the foregoing conditions are the usual characteristics found in painful menstruation. In the latter two conditions surgical interference may or may not be indicated. If the pain is acute or is limited to the first day or two, with relief in the intermenstrual period, surgical treatment is not demanded; but if the pain extends over a number of days surgical treatment is indicated.

Goodell advocated the method of rapid dilatation and this was supplemented by curettage. Then the application of caustics to the denuded surface with drainage was added and still the results were not satisfactory. Later Dr. Gill Wylie employed a drainage plug held in position by a Smith pessary for six days. The author follows this mode of procedure, but keeps the plug in for from three to six weeks and confines the patient to her bed for two or three weeks. If no discomfort is experienced, the patient is permitted to go about with her plug *in situ* for several weeks longer. The hard rubber drainage tube causes the formation of a cicatrical ring of tissue at the point of construction which ensures patulency. In a few cases the plug causes pain and must be removed sooner than the specified time. When there are fibroids or displacements or even painful ovaries the author follows out this method of treatment and later performs a second operation to relieve the other existing conditions.

Traumatic Intracranial Lesions.

C. Phelps (N. Y. Med. Jour., Jan 11, 1902) believes that even a rational suspicion of the existence of a simple fracture, as in case of a hematoma with a history of considerable violence inflicted upon the head, with or without concurrent symptoms of intracranial lesion, demands explorative incision. Unsuspected osseous depressions are most serious, yet remedial, complications have thus far been dicovered and relieved. It entails no conceivable danger. If the fissure is found closed, further investigation is not wrranted unless symptoms indicate it. In dealing with hemorrhages and brain injuries the problem becomes more difficult. The supradual form of hemorrhage (between the dura and bone) is the one which offers the best prospects for success and fortunately can usually be diagnosed. With or without primary unconsciousness, an interval of consciousness most frequently precedes its later loss. This fact is the most essential point in diagnosis and in conjunction with a subnormal or slightly elevated temperature can hardly be misinterpreted. A man suddenly dazed by a blow or a fall, who goes home thinking the injury is trivial and later develops a progressive stupor and coma, surely has an intracranial hemorrhage and almost as certainly it is of a supradual form. Subdural hemorrhages and brain injuries are less easily diagnosed, and the results of treatment are so uncertain that interference is seldom indicated.

Surgical Treatment of Ascites Due to Cirrhosis of the Liver.

Brewer (Medical News, Feb. 8, 1902) states that the concensus of opinion is that when ascites due to cirrhosis of the liver arises, the average case terminates in about eight weeks. The surgical treatment of this affection is discussed in reference to its origin, its present status, and the net results. To Morrison, of England, really belongs the credit of the operation which, by means of adhesions between the upper surface of the liver, the anterior surface of the spleen and the omentum on the one hand and the adjacent peritoneum on the other, seeks to divert the blood though newly-formed bloodvessels, from the portal system to anastomotic branches, which will convey it back to the great trunks leading to the heart, thus avoiding the liver.

Brewer reports five cases operated upon by himself, four of them terminating fatally. Concerning these cases he says all were greatly distended with fluid, and apparently in the last stages of toxemia from the disease. All but one had marked evidences of nephritis. One died of uremia, due to mistake in using ether far anesthesia in a patient with marked evidence of nephritis; one from shock, due probably to faulty technic resulting in too long an exposure

on the operating table; the third died from septic peritonitis, due in all probability to faulty technic in managing the drainage subsequent to operation. The fourth case, although the most unfavorable of all, recovered from the operation without untoward symptom, for the following reasons: Only a very small amount of chloroform was used, the operation was completed in about ten minutes, and no permanent drainage was employed, removal of the fluid being accomplishd by subsequent tappings. The fifth died of general sepsis. He has collected from literature and reports in tabulated form 60 cases operated upon, the statistics of which show that at least six cases were cured of ascites by this procedure and have remained well for a period of two years or more; six others were relieved of this symptom for from two to six months, but have died either without a return of the ascites, or have not been under observation long enough to demonstrate that the cure is permanent, Another case, that of a patient suffering from hemorrhages from the alimentary canal, was promptly cured by this operation, and a number of others have been materially improved. Thirty-eight recovered from the operation.

Fracture of the Carpal End of the Radius, with Fissure or Fracture of the Lower End of the Ulna, and Other Associated Injuries.

Beck (Annals of Surgery) uses the Rontgen ray after fracture of the lower end of the radius, as it is by this method alone that a correct anatomico-pathological diagnosis may be formed. At least two exposures in dfferent positions should be made. A soft tube should be chosen and the exposure should be long enough to show the bones distinctly and the soft tissues hardly at all. In a doubtful case in which the primary exposure is negative, several skiagrams at different stages of the after-treatment should be taken; a fissure fracture may be overlooked untill callus formation begins. He classifies fractures of the lower end of the radius as follows: epiphyseal separation; fissure; complete fracture; incomplete fracture; fracture of the carpal end of the radius complicated with fracture of the styloid process of the ulna; fracture of the carpal end of the radius combined with fissure or fracture of the lower end of the ulna; fracture of the carpal end of the radius complicated with fracutre of the scaphoid bone; and chipping of the bone. Diagrams and skiagrams of these varieties are given. Dr. Beck believes that many fractures of the lower extremity of the radius which are accompained with the so-called sideward pushing of the ulna, are complicated by fracture of the lower part of the ulna. Fissure fracture is treated by encircling the wrist by a bracelet of moss-board, free motion of the hand is permitted. In complete fracture without tendency to displacement a plaster of Paris dressing may be applied immediately. To keep recalcitrant fragments adjusted, a long wire splint is applied while strong traction is maintained and a pad of adhesive plaster is placed over the displaced bone; in dorsal displacement a short splint is bandaged to the back of the forearm. If the deformity is towards the palmar surface, the wire splint rests on the extensor aspect and the short wooden splint is applied to the flexor surface. When the displacement is lateral two short splints are employed, one on either side, the pad of adhesive plaster being placed over the projecting fragment. After the first week, if the fragments are agglutinated, short wooden splints running from the metacarpophalangeal joint up to the middle of the forearm are worn. During the third week, a moss-board bracelet is so applied as to permit of free motion of the fingers. After third week massage and motion are indicated. Malposition may often be corrected after two or three weeks. In old cases with deformity and severe functional derangement, reposition may be effected after osteotomy.

Cause of Cancer.

Mason (British Medical Journal, Jan. 18, 1902) believes that cancer is due to some germ whose habitat is in the sewage contaminated subsoil and that its entrance into the organism is through one of the mucous-membrane lined apertures of the body. This will acount for the following facts:

"1. That the cancer death rate has increased during the last sixty years—a time synchronous with the development and extension of the water closet system of drainage, bearing in mind that the first style of water closet system was simply unglazed drain-pipes, laid end to end, sometimes joined with clay and sometimes without. I have even seen in old cancer house drains made up of one brick laid flat, with two placed edgeways, and covered with slate running beneath the dwelling house. 2. That the infection of the alimentary system is as high as 55 per cent. For in those houses in which the drains are in such a faulty condition as to contaminate the subsoil, the food, which is often kept in the celars, would be the first to become infected by any germ that might be existing in the subsoil, considering there is always an upward current of air out of the subsoil into any building upon which it is built. 3.

That people over 40 years of age are more subject to it, as they become more confined to their dwelling as age advances. 4. That females are more subject to it than males, possibly on account of the domestic duties keeping them longer exposed to any poisonous influences that may thus arise. (Even the shape of the female garments would favor infection of the generative organs). 5. That consecutive houses in the same street are found often to be cancer houses, as many of the houses were built at the same time and have a common drain and if it has been badly laid or for any reason becomes faulty the subsoil of several houses may become sewage contaminated. (A great many of the cancer houses enumerated in this paper have been found to have old disused cesspools, old contaminated wells, or decayed brick sewers lying forgotten in the soil beneath the house). 6. That a large percentage of these cancer houses(17 per cent.)are end houses of rows corner houses of streets, or houses on either side of court entrances, as these are places where any defect in a drain would be most likely to be severely affected by sewage. 7. That the older houses are more subject to become cancerous than the modern ones, as the drains in the earlier days were not laid with the care they now are, that glazed pipes were not known and brick drains were often used and the drains were often run under the dwellings, which would after a time decay, become leaky, and thus contaminate the subsoil. 8. That the houses which are built on a porous subsoil, such as sandstone, gravel, etc., are more likely to become cancerous than those built on clay, though the latter in time will become saturated with sewage matter."

Nurses and Matrimony.

One objection to trained female labour says the Medical Press and Circular is that the service is liable to be disorganized by epidemics of matrimony among the employees. Nurses are by no means exempt from this weakness, and of late a disposition has shown itself in certain hospitals to discourage the admission of young women who are "engaged" on the ground that the fact of their future being thus mortgaged indisposes them to that self-abnegation and single-minded devotion to duty which are held to constitute the stock-in-trade of those who propose to take up nursing as a profession It is to be feared that this proneness to matirmony which is innate in the female bosom cannot be checked by any precautions that jealous matrons or impatient physicians may devise. Were it possible, indeed, it would be contrary to public policy to enforce them, marriage being the natural, if not the invariable, destination of woman. Some may perfer the independence of the single state, but the majority assuredly only await the opportunity to disqualify themselves for the nursing profession.

Penetrating Gunshot Wounds of the Abdomen.

Le Conte (American Journal of the Medical Sciences, Dec., 1901) reports the case of a man 27 years of age who was shot in the back, the bullet passing through the abdominal cavity. When seen a few hours later, the abdomen was tender, distended, and tympanitic in front and dull in the flanks. A preliminary incision was made, following the course of the bullet from the back; when it was found that the ball had entered the peritoneal cavity, this incision was closed and a median incision on the anterior surface of the abdomen was made. A considerable amount of fluid blood was found, and perforation of the small intestine and a tear in the transverse colon. The cause of the bleeding was a wound in one of the mesenteric arteries. All the injuries were repaired, the patient washed out with hot saline solutions and subsequently vigorously stimulated. At the end of 24 hours the patient received calomel and water, and then, after an effective enema, was given peptonized milk. On the twenty-second day the patient had recovered. The bullet has not yet been removed. In treating these cases it is necessary first, to have a clear idea of the general condition of the patient; second, a realization that the modern small calbre bullets do not necessarily produce fatal wounds when they pass through the abdominal cavity. The old-fashioned lead bullet when it enters the abdominal cavity, produces a wound that is nearly always fatal without operation, and very dangerous under any circumstances. Shock due to hemorrhage or even to very severe nervous impression should not be a contra-indication for operation. If due to hemorrhage it is urgently important to stop the flow of blood; if due to nervous impression it least enables us to repair the damage which has been done and give the patient a better chance. It is always important to examine the wound of entrance carefully to determine penetration of the abdominal cavity, for sometimes this may not occur when the wound seems to be most dangerous. The operation of course should be done as carefully as possible. The skin should be thoroughly cleansed, and the incision is usually median, but sometimes may be made in other situations, and the general character of the operation will then be de-

termined by the nature of the injuries. It is unnecessary to delay operation for the purpose of searching for the bullet. Drainage is usually important. Gun-shot wounds may always be treated as septic, and if the alimentary canal has been opened there is additional reason. Speed is very important. The subsequent treatment should be generally that used in the present case.

Spinal Fracture.

Walton (Journal of Nervous and Mental Diseases) gives the following conclusions:

1. There are no symptoms which establish (otherwise than through their persistence) irremediable crush of the cord. 2. While total relaxed paralysis, anesthesia of abrubt demarcation, total loss of reflexes, retention, priapism and tympanites, if persistent, point to complete and incurrable transverse lesion, the onset of such symptoms does not preclude a certain degree at least of restoration of function. 3. The prognosis without operation is grave. 4. While the results of operation are not brilliant, they are sufficiently encouraging to warrant us in making the practice more general. 5. In most cases it will be wise to operate within a few days of the injury, but a delay of some hours is advisable, partly on account of shock and partly to eliminate the diagnosis of simple distortion. 6. We have no infalible guide to the extent of the lesion. The operation at the worst does not materially endanger life nor affec-unfavorably the course of the case, and may at least reveal the lesion and lessen the pain; it may sometimes save a patient from death or from hopeless invalidism of most distressing character. Instead of selecting the occasional case for operation, we should rather select the occasional case in which it is contra-indicated (the patient with great displacement of vertebræ, the patient with high and rising temperature, the patient plainly moribund, the patient still under profound shock). 7. The dura should be opened freely; it need not be sutured; drainage is not necessary.

The Use of Carbolic Acid.

Sargent (Therapeutic Gazette) finds phenol a satisfactory agent for the treatment of indolent ulcer after unhealthy and false tissues have been removed, used in a 95 per cent. solution until the surface turns white. Ninety-five per cent. alcohol is then applied till the normal color of a clean granulating surface appears. It is serviceable in mammary, tuberculous and other abscesses, in erysipelas, ivy-poisoning, the lymphangitis that occurs with infected wounds, and the inflammation in caked breast. The danger of poisoning should always be borne in mind. Death has resulted from absorption through the skin. Strong acid on the fingers or toes may result in gangrene. If followed by alcohol, there is probably no danger. In poisoning cases, several patients apparently moribund have recovered after the use of alcohol. Whether alcohol acts as an antagonist or as a solvent is not certainly known. In poisoned cases, wash the stomach out with alcohol, then give whiskey hypodermically with the idea of neutralizing the acid in the blood. Other heart stimulants may be required. Alcohol is the most perfect, the most certain, and the most handy antidote to carbolic acid that we possess.

Treatment of Gleet.

Ravogli (The New York Medical Journal, January 18, 1902) says that it cannot be carried on with only one method, but requires a good deal of judgment in the selection of methods demanded in different cases. In an old case of gleet much benefit cannot be expected from internal remedies, yet in association with local applications they are useful adjuvants. The balsams have a tendency to diminish suppuration, and when the urine is cloudy their use clears it somewhat. Copaiba, cubeb, oil of turpentine and santal oil, either alone or in conjunction with others are used in emulsions or capsules. They are rather hard on the stomach and the patients cannot continue their use for a long time. The best tolerated of all is the santal oil, but its benefit is only temporary and rather questionable. It is not so of the so-called urinary antiseptics, which are of good service in the treatment of gleet. They are usually the salicylates, which giving off carbolic acid, render the urine antiseptic and less irritating to the inflamed surface of the bladder and the urethra. Futhermore, they maintain the acidity of the urine and so prevent ammoniacal decomposition. In the author's experience salol has given good results as a urinary antiseptic, and he has never noted the troubles which have been attributed to its use. Urotropine, introduced by Nicolaier, has a more powerful germicidal action, maintains the acidity of the urine, and retards its decomposition. Its action is due to formaldehyde, which is set free by the presence of uric acid. It is administered in doses of from five to ten grains three times a day. It is useful when given before using instruments, as a preventive of urethral fever. It diminishes suppuration, and by arresting ammoniacal decomposition relieves painful urinary tenesmus. Bromides and opiates are of great-

er service in relieving sexual excitability, insomnia and neurasthenic conditions, and their employment is often found necessary during treatment. Tonics are also required. The treatment on which most reliance can be placed is the local treatment. The posterior urethra needs to be washed with some force, in order to clean the surface and reach the glands. The object is attained by means of lavage, which can be done with or without a catheter. For convenience the soft rubber catheter is the best, and through it the fluid can be injected without exposing the whole urethra to unnecessary painful distension. The lavage without the catheter is advised in recent, acute, anterior urethritis, but for a chronic posterior urethritis irrigation through a recurrent catheter is much more desirable, strength of 1 to 5000. In chronic cases stronger injections must be used. The author has substituted for the nitrate of silver instillations a two or three per cent. solution of silver-protein. Mechanical treatment. In order to produce the re-absorption of the infiltrated patches, pressure must be resorted to, which is practiced by means of the sounds. The sounds are introduced once a week, their calibre being gradually increased, and they are left in for five minutes. Also grooved sounds are used in some cases in which the treatment consists in the use of salves. The application of electrolysis has given good results. If dilatation is used it must be repeated at intervals of one or two weeks, in order to give time to these fissures to heal. In the meantime the patient may continue his injections with a mild solution of permanganate or boric acid, and the urethra can be treated with a solution of silver-protein or nitrate of silver until every vestige of discharge has completely disappeared.

Treatment of Aortic Aneurysm by Wiring and Electrolysis.

Freeman (American Journal of Medical Science) concludes an interesting article as follows. 1. The two methods combined are to be recommended as the most efficient mode of treatment; 2. soft undrawn silver wire is preferable to hard, springy, copper-alloyed wire; and that 3. a large amount of wire, a strong current, a canula just introduced within the sac are essential points. He disagrees with Hunner and Stewart as to the experiments made with various wire, passed into flasks, and disapproves entirely of the hard, springy wire used in several instances, as being less likely to induce clotting, apt to spring out of place, and also not likely to behave in a smooth-walled flask as it might on a soft, roughened lining of an aneurysmal sac. Hunner's experiments on the strength of electric current necessary to induce clotting are considered unconvincing or inaccurate, owing to the fact that they were made in the rapidly moving current of a dog's aorta, although Hunner claims to have induced clotting by only 10 milliamperes. Freeman advocates a strength of 100 milliamperes, the danger of burning being very remote. Dr. Freeman does not believe that clotting of blood in one portion of the sac exposes the remainder to risk of rupture by a hypothetical increased pressure. The report of 2 cases of aortic aneurysm treated by this method is given by Dr. J. N. Hall. In Case No. I., with characteristic symptom, a pulsating tumor dislocating the right sterno-clavicular joint was present. Gelatin injections, and the tying of the right carotid and subclavian arteries had no effect. Six feet of No. 27 silver wire were introduced through a canula into the sac, and 75 milliamperes applied for 30 minutes. The tumor steadily hardened and diminished, finally vanishing. Three months later a portion of the wire presented itself at the mouth of a sinus; on its removal hemorrhage and reforming of the aneurysm occurred. A second wiring was performed, but patient died from dyspnea in 62 hours. A firm, satisfactory clot filling the whole sac and inclosing the wire was found at autopsy. In Case II., into an aneurysmal sac protruding forward and to the right, eroding the ribs, 22 feet of wire were introduced and 70 milliamperes for 60 minutes applied. The tumor decreased rapidly and the pain, previously very severe, disappeared. Two months later, pulsation returning at edge of tumor, 8 feet of wire were introduced, with 70 milliamperes for 77 minutes. Decided lessening of pulsation followed; but three weeks later for returning pulsation 3 feet of wire were introduced (some obstruction preventing the use of more), and next day 6 feet more (75 milliamperes—72 minutes). The pulsation transmitted to needle on insertion ceased before the end of the operation. Seven months' subsequent observation shows patient in good condition; the tumor lifts slightly with pulsation of aorta, but does not expand.

Syphilis of the Rectum.

Hawkins (International Medical Magazine) believes that the most common syphilitic manifestations in the rectal region are condylomas, which are often called piles, but if uncomplicated by ulceration, usually rapidly disappear when treated by internal medication and the local use of calomel

as a dusting powder, with daily ablutions with a weak solution of mercuric chlorid. Chancres are comparatively rare. Ulceration may occur during the secondary stage, but most frequently during the tertiary, and is due to gummatous deposits and infiltration of the submucous tissue. Gummas have been known to obstruct the bowels, but they usually disappear rapidly under the aggressive use of iodid. Infiltration may produce a fibrous condition with great contraction, and the stricture is sure to follow syphilitic ulcer. If this occurs in the secondary stage the use of mercury is indicated. For the third the iodid or mixed treatment is best, but it must be remembered that at times the third stage seems to anticipate itself and a mixed treatment early required. It is well not to continue the internal administration of mercury when we suspect ulcerative papillitis of the rectal mucosa. We should use inunctions so as to rapidly produce the desired effect and at the same time keep the bowel clean with semi-daily enemas of creolin solution. Codein may be given for the pain or tenesmus. The writer finds it advisable to use sulphocarbolate of zinc 20 gr. to quart of warm water in an enema once or twice daily. In some cases divulsion of the sphincter is necessary to secure proper drainage and the relief of pain. When syphilitic stricture exists it is advisable, he thinks, to use posterior linear proctotomy with the subsequent use of bougies, but he would give a very guarded prognosis, especially as regards the cessation of discharge. Ulceration is apt to persist and iodin do little good. Colostomy is all that remains for many of the cases, and it should be recommended as no worse than the disease. It allows the diseased surface to be kept clean and free from irritation.

The Treatment of Pneumonia with Creosote.

Cummings (Texas Med. Journal) recommends this remedy, finding that of twenty consecutive cases, in fourteen the crisis occurred on the fifth day. Dr. Cummings found also that after he began the use of creosote the fever did not run so high as usual, nor did it fall so suddenly at the end of the disease as to leave the patient prostrated, accompanied by the profuse sweat, but rather that the fever declined more gradually. Only one patient showed any alarming symptoms at the crisis, and she had just recovered from a severe attack of grippe when taken with pneumoina. Thus she was quite weak at the beginning. Again, he fonnd that the use of creosote lessened, to a great degree, the severity of the cough and pain, and his patients required but little medicine to produce rest or sleep. Not one ever vomited or suffered with nausea while the medicine was being administered. He uses the carbonate of creosote, beginning with ten drops every three hours, and increasing the dose five drops daily until twenty to twenty-five-drop doses are given for an adult. When the maximum dose is reached, he gives the remedy at longer intervals, say, four to five hours. In all cases he uses strychnine as a stimulant, beginning with small doses during the second stage, and increasing the dose as the patient approaches the crisis.

Blastomycetic Dermatitis.

Hektoen (Journal of Experimental Medicine, vol. iii, p. 26) records a case of dermatitis caused by a blastomyces. The patient was a man aged fifty-six, whose affection dated from four years previously, when a red spot appeared on his leg and gradually extended; this was removed by operation. A year before he was seen by Hektoen a warty growth appeared on the hand. Sections of the affected part showed blastomycetes; these were also grown in cultures, forming mycelia. The described organisms differ in many points from those described by Gilchrist and Stokes (Johns Hopkins Hospital Reports, vol.i), but the histological changes caused by them were similar. Rats and mice subcutaneously inoculated died in five days, and the organisms were regained from the point of inoculation, but not from the internal organs; a dog experimentally used proved refractory to the organism.

Acute Suffocative Pulmonary Oedema.

J. Lindsay Stevens (London Lancet, Jan. 11, 1902) differentiates the affection from pulmonary embolism, acute spasmodic asthma, uræmic asthma, and the acute pulmonary œdema sometimes following the removal of a large pleural effusion by paracentesis thoracus. In regard to treatment, he says that, on account of the great dyspnœa and the overpowering sense of suffocation caused by the continuous flow of fluid from the trachea into the mouth, the stimulants are better administered hypodermically and by the rectum. An ounce of brandy may be injected into the rectum diluted with an ounce or two of water or beef-tea. At the same time a hypodermic injection of strychnine (1-60 gr.), and of digitalin (1-100 gr.) may be administered. The patient should be kept absolutely at rest in the sitting posture. A sinapism over the præcordium is of assistance, and the extremities should be kept warm by hot bottles. Opiates in any form are to be

avoided as tending to prevent the expulsion of the œdematous fluid from the pulmonary alveoli. The injections may be repeated, if necessary, in three or four hours. If the patient is able to swallow, diffusible stimulants, such as sal volatile, are certainly to be recommended, and small quantities of milk, beef-tea, and brandy from time to time. The propriety of blood-letting also suggests itself in considering the treatment of acute suffocative pulmonary œdema, and is favorably spoken of by Dieulafoy. The blood may be taken either at the arm or by wet-cupping of the chest. The depression and collapse, however, are frequently so extreme that one hesitates to deplete.

Some Clinical Observations upon the Temperature of Phthisis, based upon Experience of One Hundred Consecutive Cases Treated by Open-Air Methods.

David Lawson (Scottish Medical and Surgical Journal, Jan., 1902) suggests a more general use of the rectal method in taking temperature in all cases of pulmonary tuberculosis. He gives the following reasons: 1. It is not so liable as the mouth to be disturbed by external conditions. 2. In some cases of genuine relapse the rise in temperature appears in the rectum sometime before it gives any indication elsewhere. The difference in time may amount to as much as twelve hours. This early indication enables the physician in charge to recognize and therefore to treat the disturbance at an earlier stage than if he had depended upon the axillary or oral reading; 3. The rectal temperature rises higher both relatively and absolutely at such times than it does elsewhere. It is, therefore, more likely to attract attention to the disturbance than the smaller rise which the oral reading would show. 4. The rectal temperature is disturbed by trivial factors, such as slight indigestion and nervous causes, which often do not affect the axillary range. 5. When we begin to deal with the question of when to start and how to regulate a patient's exercise, then the Great value of rectal reading is seen. With regard to the relation of temperature to exercise it is more complicated and intricate than is supposed. The effect upon tuberculosed patients is twofold: 1. Exercise depresses temperature. 2. Exercise raises temperature. The conclusions from the article are: 1. The rectal method of taking temperature should be more generally adopted. 2. More frequent and systematic records of temperature reading should be kept than at present. 3. The custom which prescribes further exercise where a temperature of 100.4 deg. has been recorded, is useful in a number of cases, but its application as a rule to all cases is discredited. 4. An attempt to carry out any phase of the treatment by fixed regulation and rules must frequently end in disaster. 5. The too common tendency to consider the lungs only must be discouraged. The examination of the chest must be thorough, but the condition of the various organs and their excreta, together with the light which systematic laboratory investigations throw upon them, is hardly less important.

Epilepsy.

Broadbent (British Medical Journal, Jan. 4, 1902) believes that the causation of epilepsy, an inherited tendency in the nervous system, is the most important element. This inherent tendency is for the most part congenital; in some cases it is so powerful that the attacks occur early in life; in other cases the attacks occur only under the influence of some violent exciting cause or of some depressing influence upon the general health. When infantile convulsions are followed by epilepsy, it is probable that the brain has been damaged. When, on the other hand, the convulsions set in suddenly at any period of life, peripheral irritation of some kind may be suspected. From whatever point of view the evolution of nerve energy is considered, the conclusion suggested is that a substance of an explosive character is accumulated in the gray matter which is ready to liberate energy by a sudden adjustment of chemical affinities. A convulsion, according to this theory, represents an explosion of nerve matter. The question at once arises: How is such a discharge determined? The experimental methods by which convulsions are induced have the more or less sudden arrest of the cerebral circulation as a common feature. The explanation of epilepsy to which these very concise statements of the author's ideas lead, is that the explosive material in the gray matter of the cerebrum is unstable and explodes too easily. This inherent instability characterizes epilepsy, and distinguishes the epileptic convulsion from a convulsion determined by some violent external cause. The status epilecticus would seem to disprove the theory of Hulings Jackson that the coma following an epileptic seizure is a paralysis following the exhaustion of the explosive substance. Epileptic fits are liable to come on during the night or early in the morning, soon after rising. This fact is very suggestive of cardiovascular conditions as among the influences by which the time of an outbreak is determined. The prognosis in a case of epilepsy is governed mainly by the degree

that the disease depends upon an inherent tendency in the nervous system and by the degree that it depends upon causes outside the nervous system that may aggravate the tendency or that may provoke the attacks. Heredity will play an important part in the consideration; but it is not necessary that there should be a family history of epilepsy. If, in addition to the liability of recurrent attacks of convulsions there are other evidences of a low type of nervous organization, there is practically no chance of the cessation of the attacks. If the fits have begun in childhood, at or soon after puberty and have recurred regularly and frequently, whether or not there have been other injurious influences at work, it may be concluded that an inherent tendency to instability exists. If, on the other hand, the patient has the look of bodily and mental vigor, if some serious exciting cause has preceded each attack, if the fits have not begun until late in the period of abdolescence or until adult life has been reached, it may be presumed that the inherent tendency is not strong, and that it may possibly be held in abeyance. The author regards the low tension pulse as characteristic of the disease and its existence is an unfavorable prognostic indication. A pulse of unduly high tension for the age of the patient is a ground for hope of recovery. In all cases the epileptic should have an open-air life as far as possible. Exercise of almost every kind may be permitted, unless the fits are frequent, boys may be allowed to go to school; more hesitation should be felt concerning allowing girls to continue at school. Epileptic children and young people should be very carefully dieted; overfeeding should be strictly avoided; no stimulants should be allowed. The relief of symptoms may, in many cases, be too dearly purchased by the routine administration of the bromides. These salts should be used to diminish the frequency and the severity of the fits, while the removal of the instability of the nervous system should be sought by other means. Phosphorus, the hypophosphites, arsenic, strychnine, quinine and iron may be employed to meet the latter indication.

Bacteriological Examination of Potable Waters from the Public Health Point of View.

A. C. Houston [British Medical Journal, December 21, 1901] concludes an article as follows: 1. Knowlege is required, not so much as regards those microbes peculiar to pure water, but rather as regards those which are adventitious and possibly dangerous. 2. As sewage is the most common and dangerous source of the pollution of the potable water, further knowledge is required of the bacteria characteristic of sewage. 3. The question of the relative abundance of micro-organisms of different sorts in pure water and sewage has hitherto been almost entirely neglected by bacteriologists. 4. This question of the relative abundance is most important; the biological distinction between pure and impure water is so great as to be almost inconceivable to render the adoption of stringent bacteriological standards unnecessary, and to allow the bacteriologist to detect in a water the presence of polluting material in quantity so small as to be beyond the reach of chemical analysis. 5. Streptococci, the colon bacillus, and the *Bacillus enteritidis sporogenes* are altogether absent or relatively so from pure waters. 6. The above-mentioned organisms are present in crude sewage in the greatest abundance. 7. The bacteriological tests far surpass in delicacy any chemical tests. 8. A stage may be reached in the pollution of water by sewage when the contaminating material is so small in relation to the bulk of water as to be inappreciable by chemical tests and yet to yield to bacteriological tests unequivocal evidence of gross pollution with microbes of intestinal origin. 9. The presence of streptococci indicates extremely recent pollution, or colon bacilli less recent pollution, of an animal sort. The presence of *Bacillus enteritidis sporogenes*, however, is not necessarily due to animal evacuations. 10. Streptococci and the colon bacillus are either relatively or entirely absent from virgin soils, while present in abundance in soils recently polluted with animal matters. 11. The presence of streptococci in any number in a water supply indicates that the antecedent conditions could hardly have been of so unfavorable a character as to destroy the vitality of seemingly more hardy microbes; for example, the typhoid bacillus. 12. Organic matter per se is harmless; it is the bacteria likely to be associated with the organic matter that constitutes the element of danger. 13. Chemical analysis cannot show the presence of organic matter in one drop of sewage; yet a like quantity can be shown bacteriologically to harbor objectionable germs in great abundance. 14. It is not necessary to demonstrate in a polluted water supply the presence of definitely pathogenic microbes to prove that there is danger in drinking such water. 15. It is sufficient to show that microbes indubitably of intestinal origin are present to condemn that water; such microbes may be accompanied at any time by pathogenic micro-organisms. 16. The bacteriologist can show that, between a

pure water and a water contaminated even with minute traces of excremental matter, there exists a biological difference not only of degree but of kind. 17. Under like conditions the chemist may fail to appreciate the pollution altogether. 18. Chemical methods are based on an assumed relationship which may or may not exist between the amount of organic matter and the number and character of the associated bacteria. 19. Chemical analysis of water should in the future occupy a secondary position as a means of judging the purity of water supplies. 20. Until these facts are recognized and acted upon, progress in the prevention of waterborne disease must needs remain unsatisfactory.

Report of a Case of Paralysis Following Abortion.

Harry Morell [Philadelphia Med. Jour., Jan. 18, 1902] describes the case of a woman aged twenty-nine, who when three months pregnant started to flow, and continued to lose blood for six weeks. She went to bed for a time and then was about the house for about two weeks, although she suffered from severe pain in the back of her thighs. At the end of this time the fœtus had to be taken away, but the placenta would not come even with instruments. A little later it come away spontaneously. The patient was in bed about two weeks after this, and when she was up again she complained of weakness in her left hip and a numbness and unnatural feeling from the waist to the toes. Gradually the right leg became paralyzed, and the patient had to take to her bed again, with absolute paralysis and muscular spasms of both legs. There was a pus tube on each side, and an oozing of pus from the cervix. She remained in bed for two years in good health, excepting the troubles just mentioned, after which there was a gradual return of sensation and motion; and at this time the patient is apparently well,although not robust. He concludes by saying that paralysis may occur after labor, abortion, or pelvic inflammation; paralysis after labor, usually results from pressure neuritis, and that after abortion or pelvic inflammation is, or is likely to be, due to myelitis from infection. It is sometimes impossible to say clinically whether the disease is a neuritis or myelitis or both.

Round Ligament Ventrosuspension.

Gilliam (New York Medical Journal Jan. 4, 1902) has changed his original idea about this operation. He performs it now as follows:

"An abdominal incision three or four inches in length is made in the median line at the usual site between the umbilicus and pubes. The adhesions are broken up and the fundus brought forward. With a finger and thumb or a pair of bullet forceps the broad ligament of one side is seized and brought to the opening. By lifting up the anterior surface of the broad ligament on the tip of a finger applied to its posterior surface the round ligament is brought into view and is picked up, either between the thumb and finger or with a bullet forceps. Selecting a point an inch and a half from the uterus, a thread is passed under the round ligament and the ends of the thread are brought out of the opening and secured in the bite of a clamp forceps, which is laid upon the surface of the abdomen. The other ligament is sought for and secured in the same manner. At a point about one inch and a half above the pubes, the peritoneum, muscle, and fascia at one edge of the wound are caught up by a volsella and pinned together, being careful the edges of these layers are in line. Traction is now made, and with a small retractor, the skin and superficial fat are drawn in the oppo site direction, uncovering the fascia. With a narrow-bladed knife, or better with the perforating forceps devised for the purpose a stab wound is made from the surface of the fascia into the peritoneal cavity, the instrument entering one half inch from the edge of the abdominal incision, and passing obliquely downward and outward, emerging on the peritoneum one inch from the edge of the abdominal incision. If the perforating forceps is used, the jaws are seperated, and, by an outward movement of the handle, brought into plain view at the large opening. The thread which loops the round ligament is now placed in the jaws, the clamp forceps removed, and the perforating forceps withdrawn, bringing with it the thread and the ligament. If a knife has been used to make the perforation it is withdrawn and a slender forceps introduced, with which the thread is caught up and the ligament drawn into place. Now, while the ligament is held taut with its loop end a quater or third of an inch above the surface of the fascia, a catgut suture is passed through it, including the tissues on either side, and back again, where it is tied. This is cut close to the knot, the suspending thread cut on one side close to the ligament and withdrawn, and the volsella and retractor removed. The other side is dealt with in like manner and the abdominal incision closed." Dr. Gilliam claims that this leaves ample space for uterine pregnancy and also obviates any possibility of strangulation of the bowel.

The uterus rests easily and naturally on the bladder from which it can be raised to a position little short of vertical. In later operations he has had no trouble whatever from supperation, which he attributes to the fact that he handles the ligament as little as possible and clips the suspending thread close to the ligament so as to avoid contamination by drawing it full length through the loop of the ligament after exposure of the abdominal wall. The slanting perforation of the abdominal wall through which the ligament is drawn is made in deference to a suggestion of Dr. W. E. B. Davis, who thinks it would be a safeguard against hernia.

Etiology of Exophthalmic Goitre.

Breuer (Indian Medical Record, Dec. 25, 1901) records some observations which are likely to throw new light upon the causation of the exophthalmic goitre. Speaking generally, two views are held with regard to the etiology of the malady: Some regard it as due entirely to an alteration in the secretion and the normal physiological activity of the thyroid gland, and denote this morbid condition by the term of "hyperthyroidism;" while others hold that there occurs coincidentally with this alteration in the normal function of the thyroid gland a pronounced change in the central nervous system, and that this latter condition is not a mere accident, but plays, indeed, a highly important part in the production of the affection in question; hence, they suggest the name—as a matter of simplification of the nomenclature, as they call it—"neurocardiac disease," as expressive both of the pathology and the striking clinical phenomena. The first of these views has, in the very first instance, received most of its support from German and English pathologists, and especially from Mosbius in Germany and Greenfield in this country; of late years, however, this view has been adopted, though modified to some extent, by far the greater number of all the writers on this subject. Breuer in this paper, endeavors to show that, if this view be applicable, it could be only applied to a limited number of cases, while in the remainder the etiology varies individually. Thus, he reports the case of a man, whose previous general condition showed no morbid signs, in whom he was able to observe the development of the well-known triad of clinical symptoms in connection with a sudden formation of an inflammatory abscess in the thyroid gland; and in another group of cases (10), all the typical signs of exophthalmic goitre followed upon and were evidently, according to the author, produced by the external application of a strong solution of iodine to the thyroid gland. This observation forms a valuable contribution to our knowledge of the etiology of exophthalmic goitre; indeed, it clearly shows that exophthalmic goitre, both in an acute and chronic form, may arise under conditions which are by no means favorable to the so-called thyriogenic theory, which—possibly in the absence of better knowledge—has now obtained the favor of most clinicans. Moreover, the cases published in support of the latter view, in which thyroid extract given in excess—nay, even a single overdose, as in the famous case reported by Beclere—produced symptoms (great prostration, followed by sweating, distressing headache, tachycardia tremor) not unlike those of Basedow's disease, do not stand a close examination with regard to their actual relation to that affection. Hence the conclusion may be drawn: (1) That the question with reference to the genesis of exophthalmic goitre is far from being settled; (2) that in all probability there is a combination of diverse etiological factors, varying, of course, in degree and extent in different individuals, which act together in producing the disease under consideration.

Hemiplegia.

J. Taylor (Lancet, Dec. 28, 1901) speaks of the nature of the lesion producing the paralysis as determined by the clinical history of the case.

1. *Hæmorrhage.*— The onset of the paralysis is sudden and may take place during exertion; *e. g.*, straining at stool. There is loss of consciousness, and coma with stertorous breathing. If the hæmorrhage is cortical, the onset is usually signalized by a convulsion, beginning on the opposite side and becoming general. The pulse may be full and tense and the artries hard and atheromatous. Absence of albuminuria does not exclude kidney change; albuminuric retinitis is frequently present in the entire absence of albuminuria.

2. *Thrombosis.*—The onset, as a rule, occurs during rest; the commonest time is at night, and the paralysis may only be realized when an attempt is made to rise. As a rule, there is no loss of consciousness, the pulse is slow, and the symptoms are not urgent. When the hemiplegia is on the right side and aphasia is present, the cause is more likely to be thrombosis than hæmorrhage. In young adults in whom no heart or kidney disease is present, hemiplegia is almost invarably due to thrombosis occuring in diseased vessels. The nat-

ure of such disease is the thickening resulting from syphilis.

3. *Embolism.*—The onset is sudden, consciousness may or may not be lost, and if the right side is affected, aphasia is usually present. Sudden onset and the presence of obvious heart disease usually indicate the nature of the lesion.

4. *Tumor.*—Here the clinical history is of the greatest importance. The onset of the hemiplegia is usually slow, and is associated with headache, vomiting, and optic neuritis.

5. *Abscess.*—Here there is usually a history of traumatism, ear disease, empyema, or suppuration, in some other part.

Hemiplegia occurring in childhood may be of two kinds: 1. A birth palsy, hemiplegic in type, occuring during birth and due to meningeal hæmorrhage. 2. Ordinary infantile hemiplegia, occuring during the early years of life, and commencing usually with a unilateral fit or convulsions. The cause is uncertain; it is ascribed by some to inflammation of the gray matter, by others to arterial thrombosis. Maldevelopment of the hemiplegic side nearly always results.

The treatment of hemiplegia divides itself into the treatment at the onset, and the late treatment for the purpose of restoring function. Treatment at the onset depends on the cause of the paralysis. If it is hæmorrhage, free purgation, light easily digested food, and absolute rest are indicated. If embolism or thrombosis in the old, all violent measures are to be carefully avoided. If thrombosis in the young, then mercury and potassium iodide are to be energetically administered. Treatment in the later stages is directed to improvement in the condition. Gentle rubbing and Faradaization to the extensors are beneficial, together with fresh air, gentle exercise, and light, easily digested food.

Carcinoma and Malaria.

Davidson [British Medical Journal, Jan. 11, 1902] mentions that in his thesis for promotion forwarded to the War Office in 1898, he remarked on this subject, giving the relative prevalence of these diseases in several countries and drawing attention to their apparent incompatibility.

It may be taken as a general law that where malaria is prevalent cancer is rare. There are, however, exceptions to this rule. In the Farœ Islands and Iceland, for example, malaria is practically unknown but so also is cancer. Again, in the central plateau of Arabia there is no malaria and cancer is almost unknown. I could give other examples if necessary, but the above will suffice. It is quite possible that in these cases the primary causes of both diseases are absent.

But we have another general law with reference to cancer. Like scarlet fever it becomes less frequent as the tropics are approached.

Its incidence in respect to race is also interesting. For instance, as we have seen, it is practically unknown in Iceland and the Farœ Islands, but the same race in Denmark probably suffers more from cancer is another interesting example. The negroes of the West Coast may be said to be free from cancer, while it atacks the same race in America with increasing frequency.

It is remarkable that cancer is now most prevalent along the banks of rivers which run through clay soil, and that these were the regions previously most affected with malaria. Has the one disease displaced the other?

Dr. Davidson's conclusions after a fairly exhaustive study of the disease are as follows:

1. Cancer seems to be a disease of locality rather than of race, and is probably due to a micro-organism.

2. It does not appear to be prevalent in warm regions.

3. A large malarial mortality is associated with a low cancer death-rate.

4. There is no evidence to connect it with food nor with excessive consumption of meat.

5. It is a disease of cold climates, and it would appear to be most fatal in damp, cold countries associated with a clay soil, along the banks of rivers which are liable to overflow.

Criminal Arbortion.

Stuver [Medical News, Jan. 25, 1902] defines abortion as the deliberate and intentional interruption of pregnancy before viability of the fetus has been attained. He also says that before we can correct an evil we should have a clear conception of the causes which produce it and gives the following: 1. Hereditary vestiges of pre-existing savage or barbarous instincts and practices; 2. ignorance of the biological fact that from the moment of conception the developing embryo contains all the potential powers of the fully developed individual; 3. apathy, or a spirit of *laissez faire*, on the part of the great majority of people; 4. incompetence on the part of legislators to comprehend the true significance of the subject, and the consequent futility of the laws enacted by them to prevent the crime of abortion by adequate

punishment thereof; 5. the inability, or disinclination, of judges to appreciate the rights of the embryo as an individual entity during the early stage of its development; 6. the ignorance, or disregard, of the subject on the part of teachers, ministers, druggists and physicians and the frequent complicity of the two latter classes in the perpetration of the crime; 7. ignorance of the physical danger and the moral degradation inevitably attendant on the offence.

Typhoid Cholecystitis.

Pratt (American Journal of the Medical Sciences) emphasizes the great frequency with which the typhoid bacillus is found in the gall-bladder, both in cases in which examination of the blood showed it to be present or absent. The presence of the typhoid bacillus in the gall-bladder does not necessitate any cholecystic change, so some factor other than the presence of the bacillus must be necessary to produce cholecystitis. The organism may remain in the gall-bladder long after it has disappeared from other organs, and cases of its having been found after some years are referred to by the writer. It is possible that invasion occurs in two ways: one by an ascending infection by the biliary passages from the duodenum; secondly, by hematogenous infection. In typhoid the evidence seems to point to the latter mode, as the bacillus is nearly always found in pure culture. Were infection to take place from the biliary passages, we should expect it to be mixed, especially with the bacillus coli or streptococci. The previous infection of the gall-bladder by typhoid bacillus might possibly give rise to the formation of gall-stones. He quotes Dufourt as having observed nineteen cases of gall-stones, in which the first symptoms appeared after typhoid fever; in twelve instances within so short a time as six months. Other writers, such as Cushing and Richardson, have also observed a connection between typhoid fever and gall-stones, the latter having noticed large clumps of bacilli suggesting a gigantic Widal reaction in the gall-bladder. These clumps of agglutinated bacteria might quite well serve as the starting-point of biliary calculi. The same writer has even produced a calculus seven millimeters in diameter by injecting a culture agglutinated bacilli into the gall-bladder of a rabbit.

Dyspeptic Asthma.

Einhorn (Journal of the American Medical Association, Feb. 8, 1902) mentions that dyspeptic asthma is not a rare condition and it is of great importance to the practitioner. The term "dyspeptic asthma" should be applied to those cases free from involvement of the chest organs and in which the affection has a distinct connection with the digestive apparatus. Cardiac and pulmonary asthma is sometimes excited or increased during digestion. The author has observed 31 cases of dyspeptic asthma in which the chest organs were apparently normal. These cases he has arranged into two groups: "(1) cases in which dyspeptic asthma appears in an acute form periodically; (2) cases in which dyspeptic asthma assumes a more chronic type." He has also observed two varieties of the chronic form "(a) cases in which the attacks of asthma appear quite soon after meals, either without any peculiar provocation or after some slight exertion; (b) cases in which attacks usually occur two or three hours after meals either spontaneously or again after some exertion, walking, etc." Some of the chronic cases of dyspeptic asthma closely resemble true angina pectoris. These cases are difficult to diagnose. As a rule, cases of dyspeptic asthma yield to treatment. By directing attention to the digestive apparatus good results usually follow. Many of the cases can be permanently cured. A considerable number of patients afflicted with dyspeptic asthma are also sufferers from achylia gastrica; and others from hyperchlorhydria.

Studies of an Epidemic of Dysentery in Japan, with Especial Consideration of the Bacillus Dysenteriae.

Shiga (Philadelphia Medical Journal) gives a review of the dysentery bacillus, describes its morphology, cultural characteristics, its behavior toward various antiseptics, and then its relation to the disease itself. The dysentery bacilli are found in the latter half of the first week of the disease in the fresh stools; in the later stages of the disease they are rather difficult to cultivate. They disappear more or less completely as the patient improves. If there is a relapse they again appear in large numbers. One finds the bacilli in almost pure culture in fresh catarrhal or diphtheritic areas in the bowel; in fresh conditions they are found more superficially in the lesions; in the old infection, the colon bacillus and other microorganisms overgrow them. The bacilli are often found in the mesenteric glands, but the author has never found them in the liver or spleen. He examined 5 cases of parotitis which occurred in the course of dysentery and was unable to find the bacilli in extirpated portions of the glands or in juices of the gland. The urine, blood and milk are always sterile. Because of the localized character

of the disease one finds in dysentery no tumor of the spleen, no eruption and no inflammatory conditions of the bone and bone marrow, etc., such as are found in typhoid fever. The agglutinative reaction he has tested in hundreds of patients and found it generally parallel in intensity with the severity of the disease. It appears in some instances in dilution as great as 1 to 130, and so on down, very mild cases being negative at 1 to 10. He has seen the reaction present as long as 8 months after the attack. It is not, however, of importance in diagnosis in many instances, because it is very likely to be absent in very mild or doubtful cases. He discusses the relation between the typhoid serum reaction and the prognosis, and then states that after making quantitative investigations on the agglutinating power of the blood in dysentery, he found that its intensity is practically parallel with the severity of the disease excepting in very grave cases which are commonly fatal, in which the reaction is usually but slightly marked. Agglutination appears only in the second or third week of the disease, and reaches its highest point in convalescence. It sometimes appears as late as the sixth week, and this late appearance makes it of little importance in diagnosis. The bacteriological diagnosis of a case of dysentery may be made by carrying out the agglutination test of a culture with immune serum, by cultivating on glucose agar, and in milk. If agglutination occurs at once, if there is no gas production, and if milk has not coagulated, the dysentery bacilli may be considered to be present.

The Fish Theory of Leprosy.

Jonathan Hutchison, (Polyclinic Dec., 1901], says that those who support this theory by no means suspect all kinds of fish, and do not hold that a large consumption of any kind is essential to the result. The kind of fish food under chief suspicion is dried or imperfectly salted fish. Fish in one of these conditions is often imported inland. It is light, indestructible, and easy of carriage, and it is in great request as a condiment wherever the supply of fresh meat is deficient. Especially is it valued wherever rice is largely eaten, and it is often used in conditions of decomposition which would render it very repulsive to European palates. It is suspected then that fish food of this kind, uncooked, may either carry the bacillus itself, or be the stimulant which excites it to action. Some would even go as far as to suggest that it may perhaps transmute the tubercle bacillus into that of leprosy. He gives three chief objections to this:

1. Its non-occurrence at the present day amongst many communities which yet consume fish freely. In reply to this it may be admitted that if sporadic cases did occur more frequently in non-leprous districts, and if these could be traced to salt fish eating the hypothesis would be strengthened; but a fair answer to the objection is that the fish which is now consumed in civilized communities is either fresh or well cured, and that it is usually well cooked.

2. Its occurrence in many inland communities who do not consume any large quantity of fish. This objection has usually been urged in forgetfulness of the fact that it is not the consumption of large quantities which is under suspicion, but of small quantities of a bad kind.

3. The fact that some individual lepers will deny that they have ever tasted fish. This kind of evidence comes almost solely from India, and it is given chiefly by those who by religious creed are forbidden to eat it. In many instances it may have been that the inquiry was not make definite as regards fish condiments and dried fish, and it may have been in some that the reply was not a truthful one. We confess that we should like to see the microbe in the fish.

Anesthesia.

G. P. Haymore (Atlanta Journal Record), observes that an operation is ofttimes hindered and harrassed throughout an operation by muscular movements on part of the patient, due to timidity of the anesthetizer in not administering enough of the anesthetic, and in order to avoid this he should be well acquainted with the signs of complete anesthesia. The most important are: 1. Complete muscular relaxation associated with abolition of reflex movements. 2. Deep snoring respiration. 3. Conjunctival anesthesia. It should be the effort of the anesthetizer to give the patient enough of the anesthetic, so that there will be just a faint reflex in the conjunctiva, and remember always any beyond this point of conjunctival anesthesia is dangerous. It is very important that careful watch should be constant over the pulse and respiratory movements, in order that any marked changes or signs of danger may be noted instantly. The most common symptoms of danger are: 1. Failure of circulation, associated with a pallid or ashy expression of the features. Sudden and fixed dilation of the pupil. 3. Shallow and rapid respiratory movements, or cessation of respiration. 4. A cyanosed condition of the face, with protusion of eyeballs, due in majority

of cases to obstruction of air entering the lungs, by the tongue falling back on the larnyx. If any of these first mentioned symptoms should occur, i. e. circulatory failure, respiratory failure, or sudden fixed dilation of the pupils, the anesthetizer should immediately lower the mask in order to allow the patient more air, then if the condition does not speedily improve, proceed at once to measures of resuscitation.

High Temperature.

Dr. Sawyer [Journal of Medicine and Science, January, 1902,] reports this case:

He attended Mrs. W. in confinement, September 26, which was normal in every way, under the usual antiseptic precautions.

The following four days there was nothing unusual in her condition. The fifth day in the evening he was called on account of the patient having slight chills, some pain in the lower abdomen and fever. He found her with a temperature of 104.5, pulse 130.

He immediately gave an intrauterine douche of sterilized water with a dram of carbolic acid to the quart, using two quarts.

There was very little odor to the discharge and but slight abdominal tenderness.

Directly after the douche her temperature was 104, pulse 120. She had taken physic which had operated during the day.

He gave twelve grains of quinine and went home.

Was recalled in about an hour and found the patient in the worst chill he had ever seen.

The nurse had given whiskey and applied heat. He gave strychnin hypodermically. Her temperature at this time was 108.1 and pulse 160. Within two hours it had fallen to 105.6 pulse 140, mind clearer.

In the morning it was normal and continued so for thirty-six hours when it returned and remained from 100°to 104 for ten days, then subsided, the patient making a good recovery. Having had a somewhat similar experience in washing out a pleural cavity with a carbolized solution of the same strength leads him to believe that in some way the irrigation was responsible in a measure for the high temperature.

"Maternal Impressions."

Bankstone (Alabama Medical Journal) says that the scientific feature of the cell element of life is often overlooked. It is endowed with individual and mixed properties of the physical, mental, motor and sensory elements of either or both parents; and only needs the mother's blood to properly develope it. The blood itself is capable of conveying impressions to the fœtus just as the infant is affected by the mother's milk under some psychic disturbance. Then, again, disturbances of fœtal development can occur dependent upon the amount and quality of mother's blood. Prenatal psychic conditions do actually exist and are generally alluded to as "maternal impressions". They are not the result of superstitions handed down from several generations, as has been argued by some writers. If the individual mind is capable of auto-psychic impressions, as is admitted by some, why should not the same law be extended to the uterus and fœtal life? From a biological point of view, the parent cell certainly contains every element of life and functions.

When the ovum ruptures and finds its way into the tube, it contains the elements of growths and perfections within its microscopic confines and later when fertilized by the spermatozoon froms a combination of cell units equivalent to the life and function of the parents. The maternial nourishment conveys not only nutrition to the impregnated ovum, but also conveys psychic impressions as seen in grief, fright, anger, etc., and these emotions are able to alter cell nutrition in the fœtus, which results oftentimes in certain structural changes. That such exists although there may be an absence of intercommunicating nerves is shown by many instances.

Therefore, he concludes that maternal impressions can be conveyed through the blood and that direct nerve intercommunication between mother and fœtus is not required; that psychic forces are admitted to exist, and that they are important factors in the formation and development of the child.

Investigations of the Action of Opium or Morphine on the Intestines.

The investigations of Dr. Wiener (St. Paul Medical Journal) lead to the interesting result that neither opium nor morphine causes a paralysis of the intestines, as was generally believed heretofore. On the contrary, these drugs act excitingly on the nerve apparatus of the intestines, aggravate or regulate the tonus of the same, and create in this way inhibitory or styptic effect. These drugs cause an even, contractile condition of the intestines which, in consequence, is the cause for the inhibitory action. Nevertheless, the contents of the intestines will be accumulated in the colon in spite of opium, but the desire to defecate

will be abolished by it. Pains which occur in non-inflammatory conditions are to be referred to excitation of the nerves of the peritoneal covering, which may be excited by mechanical irritation or convulsive contractions. Opium relaxes the intestines and acts against the stimulating influence over the ganglionic apparatus of the intestinal wall. In cases of inflammatory affections, opiates only act beneficially in large doses.

Otitis Media and Pneumonia.

Wilson (Birmingham Medical Review), mentions a number of cases showing clearly how some of the gravest symptoms arising during pneumonia are due to acute middle ear suppuration. In pneumonia, otitis media is not infrequently quite latent. There may be no noticeable deafness, pain, headache, or discharge from the ears, and yet the patient may be dying from retention of septic pus in the tympanic cavity. The otitis is generally secondary to the pneumonia. The pneumococcus brought into the pharynx by coughing, passes through the Eustachian tube and causes suppuration. This shows the need for antiseptic treatment of the throat in pneumonia, especially in children. Although there may be no pain, deafness,, or discharge, there are often symptoms suggestive of an incipient pyæmic state. There may be slight pain and tenderness in the limbs, or a little swelling of a joint. Diarrhœa about the fifth or sixth day of pneumonia, is also suggestive of some complications threatening pneumonia; the appearance of small boils is another valuable symptom. A watch must always be kept for cerebral signs, pointing to meningeal irritation. He urges that the ears should be examined in every case of severe acute pneumonia in children and young people, for these cases are very easily overlooked till too late.

The Bacteriological Examination of the Renal Secretion in Certain of the Zymotic Diseases, with Subsidiary Differential Experiments.

Lewis (Edinburgh Medical Journal, Vol. x, No. 6,) states that the presence of specific micro-organisms in the urine in cases of zymotic disease has been frequently described, particularly in connection with typhoid fever. The subject is of great practical importance as well as of scientific interest, because on its solution depends the answer to the question of the routine disinfection of the urine in these diseases. He believes that the healthy kidney possesses no power of casting out living organisms, although it is able to remove the products of their action. Any escape of bacteria through the kidney is only accomplished when there is functional interference with the integrity of the renal epithelium or some congestive or inflammatory condition. Bacteria, escaping by the way of the urine are usually accompanied by some other abnormal constituent, such as blood, pus, or albumin. One hundred and fifty-eight specimens of the urine of 45 typhoid fever patients were examined, in only one of which the bacillus typhosus was found. Dr. Lewis believes that there are two types of typhoid bacilluria; one occurring in severe cases of the fever, commencing during the height of the disease, accompanied by albuminuria, pyuria or hematuria and diminishing as the albuminuria diminishes, finally disappearing. In the second type, the bacilluria begins in the latter stages of the disease and persists into and during convalesence or even for months without causing severe symptoms; albuminuria is not an invariable accompaniment. This type is the one most likely to disseminate the disease. The organisms reach the bladder through the kidney; but Lewis believes in a smaller portion of cases than 25%. A case reported by Petruschky proves that the urine is infective and it is, therefore, imperatively necessary to disinfect any urine containing the bacillus. For this purpose heat is the best medium. He has examined 51 specimens of urine from 16 cases of scarlet fever. From the specimens he obtained 2 pathogenic varieties of streptococci which he describes at length. Dr. Lewis also examined 43 specimens of urine from 17 cases of diphtheria without in any case isolating the bacillus of Loffler. Some subsidiary experiments showed that the urine of healthy persons is more often sterile than that of the sick, and the sterile urine of healthy persons and of typhoid fever patients is a suitable culture medium for the bacillus typhosus.

Acute Mastoid Suppuration.

Phillips (Post-Graduate), says that acute mastoiditis is a common sequela of influenza. In all grippe cases there is present a large amount of infectious material in the nose and nasopharynx. The characteristic cocci of this infection are the strepto-cocci, staphylococci, and pneumococci. In these cases blowing of the nose may carry the infection into the middle ear, and set up acute middle ear suppuration—a suppuration which is peculiarly virulent, and rapidly destructive to all tissue it comes in contact with. The important symptoms are [1] tenderness over mastoid process on the level

of the antrum; [2] bulging of Shapnell's membrane and the superior posterior wall of the canal; [3] the presence of streptococci or staphylococci in the pus escaping from the middle ear. Phillips recommends early incision of the drum membrane, and the application of the ice coil, or local blood-letting for 24 or 36 hours. If, at the end of this time, there is not a permanent remission of symptoms, operation should not be delayed. He also thinks that where the infective cocci are found in the discharge, no amount of palliative treatment will have any effect on the final result.

X-Ray Burns.

T. W. Huntington (Annals of Surgery, Dec., 1901) states that the usual process is subacute or chronic necrobiosis. The cause of this death of skin-tissue depends upon an irritation of the peripheral sensory nerves, with a secondary paralysis of the vasomotor system of the affected area. Spasmodic contraction of the small blood vessels follows. Nutrition of the cells is impaired and then their death becomes the logical result. A peculiar, progressive gangrene has been known to appear four weeks after exposure. It began in the center of the affected area and did not invade the outer limit until after four months. During this whole time there was persistent, though almost imperceptible, progression. It was found that the intima of the arterioles and veins, especially of the latter, was much thickened, and that the lumen of all was correspondingly narrowed. This, it is claimed, was due to a deposit of reticular masses of delicate fibrous tissue. Similar processes were noted also in the other coats of the blood-vessels. The deeper vessels continued to perform their function imperfectly and later indicated a degenerative process also. Authorities generally agree that medical treatment of these ulcers is not at all satisfactory and usually altogether useless. From the standpoint of surgeons it must be borne in mind that a slowly-progressive degenerative process is the essence of the disease, which both superficially and vertically is without definite limitations. Symptoms attributable to hyperesthesia of the affected area are of some value, but evidence referable to this source is unreliable, owing to tardy encroachment upon what had seemed previously to be healthy tissue. It follows, therefore, that if the ulcer is to be excised the operation be performed with extreme boldness to the end that all tissue supplied by defective blood-vessels may be removed.

Causes and Significance of Phantom Tumors.

Bennett (The London Lancet, Jan. 4, 1902) divides phantom tumors into three classes according to causation as follows: 1. Irritation—*a*. Irritation of the skin or of other superficial parts either immediately over the muscle or muscles concerned or over the course of the nerves which supply them; *b*, the existence of underlying disease or abnormality—for an example, supposing the tumor to be in the abdominal wall, some disease in the abdominal cavity which, by reason of its situation or relation, causes nerve irritation leading to contraction of a corresponding muscular area—such tumors, when occurring immediately over the underlying disease, are usually "protective"; 2, Occupation.—In a certain number of cases in which the occupation of the individual entails the use of a particular muscle or group of muscles for a long period continuously, the muscles concerned come, as it were, into permanent action, and remain hard and enlarged, although the occupation has been temporarily discontinued. These are "occupation" phantoms; 3. Imitation.—In a certain type of neurotic people the tendency to imitate the diseases or deformities of others is very strong. "Nervous mimicry of disease" was the admirable term applied to these cases by Sir James Paget. The nervous mimicry of hip-disease is, perhaps, one of the commonest examples with which we meet of this curious tendency. Tumors are sometimes imitated in the same way, although the scope for the deception is necessarily very limited. These are "imitative phantoms." Illustrative cases are described under each class. As to treatment the obvious indication is the removal of the cause.

The Behavior of Epinephrin to Fehling's Solution and other Characteristics of this Substance.

J. Abel [Johns Hopkins Hosp. Bull., November, 1901] gives a detailed account of the chemical characteristics of epinephrin, the constituent of the suprarenal gland which causes increase of the blood pressure. Epinephrin in its native state easily reduces silver nitrate and other metallic salts, but fails to reduce Fehling's solution. On being treated with hydrogen sulphide, or with hydrochloric acid and tin, in the proper medium, or on saponification of its benzoyl or acetyl derivatives in the autoclave, it becomes an energetic reducing agent for alkaline copper solution and causes an abundant precipitation of cuprous oxide in the boiling mixture. The commercial preparation adrena-

lin also reduces copper sulphate. Adrenalin is very probably a mixture of native and reduced epinephrin. Many other details as to the chemical properties of epinephrin are given by Abel. It has long been known that aqueous or dilute alcoholic extracts of the suprarenal gland give a pure emeral green color with ferric chloride. When this test is made with pure epinephrin, or with one of its salts, it is found that the color persists for a very brief period only; but the addition of potassium benzene thiosulphonate fixes the emerald green color which appears on the subsequent addition of ferric chloride. A colorimetric quantitative method for the estimation of epinephrin may be based on this reaction.

Diagnosis of Syphilis.

James C White (Boston Medical and Surgical Journal, Jan. 16, 1902), believes that the failure to obtain a history of an initial lesion, is of little importance, and still less so when patients present themselves with the characteristic syphilodermata. The inconstancy of the so-called "copper color" of the lesions, he believes to be another confusing element and often the source of error in the diagnosis. Likewise it is unimportant in the diagnosis of syphilis whether or not there are any lesions on the scalp. The absence of marasmus or emaciation should not be considered as having weight against a diagnosis of congenital syphilis, as many syphilitic children are born plump and apparently healthy. The rashes caused by the administration of the iodides often resemble syphilitic lesions to such an extent that an error in diagnosis is frequently made, which the author believes would occur less frequently if dermatologists would more intimately acquaint themselves with the iodide eruptions. He is of the opinion that there is sometimes difficulty in making a differential diagnosis between variola, varicella and syphilis. Pityriasis rosea, described some time ago by Gilbert, may give rise to confusion, especially because but few physicians recognize the affection, which is not always taught. The differential diagnosis between syphilis and the many lesions which may simulate it, are discussed in detail. He calls particular attention to the courage that is required to make a diagnosis of syphilis, especially when the social standing of the patient is allowed to influence the physicians. Dr, White believes in a year of continuous treatment, the second year the same, or an interrupted course of treatment, and in the third year no treatment but observations; all these points to be emphatically impressed upon the patient.

Diagnosis of Smallpox.

Schamberg (Journal of the American Medical Association, Jan. 25, 1902), states that the diagnosis of variola in the pustular stage is easy. The disease can scarcely be mistaken for anything else. During the first or second day of the eruption, especially in mild cases, the diagnosis may present perplexities. Before the eruption makes its appearance, it is seldom safe to affirm anything beyond a strong suspicion. In the study of a large number of cases the author has found that a chill most frequently announces the onset of the disease. In some patients the first symptom complained of is headache, and in other cases vomiting is the first manifestation. Backache and weakness of the lower extremities are early symptoms in some cases. Complete anorexia may develop in some individuals during the last days of the period of incubation. Fever reaching 104-105 deg. Fah. may even occur in mild cases and is often accompanied by delirium and in children by convulsions. One hundred cases recently admitted to the Municipal Hospital, Philadelphia, were analyzed in order to ascertain the frequency of the various initial symptoms. It was found that "headache was present in 86 per cent.; chills were present in 78 per cent,; backache was present in 70 per cent.; vertigo was present in 57 per cent.; vomiting was present in 55 per cent. nausea without vomiting was present in 10 per cent. more of the cases. In but 2 patients was there complete absence of an initial stage." He states, that the prodromal rashes of variola which may be morbilliform, scarlatiniform, purpuric in character, may be mistaken for measles or scarlet fever. The rash of measles is more elevated, in his opinion. The absence of early tonsillar and throat symptoms will help to distinguish smallpox from scarlet fever when the scarlatiniform rash is present in variola. He gives some important hints for the differentiation of smallpox from chickenpox. Prodromal symptoms are absent in chickenpox. The distribution of eruption varies in these two diseases. In smallpox it particularly involves the face, arms, and legs, and upon the trunk the lesions are more sparse, while, in chickening pox, the trunk, as a rule, is chiefly involved. Dr. Schamburg also mentions that the character of the lesions of smallpox differs markedly from that of chickenpox. The shoty papules which slowly increase in size and develop into vesicles and pustules and their multilocular characters are easily distinguished from the unilocular "dew-drop-like" vesicle of chickenpox. The author contends that the pustular syphilo-

derm is sometimes with difficulty distinguished from the eruption of variola. Information concerning the initial lesion and perhaps the antecadent eruption, and also the presence or former existence of mucous patches, alopecia, tonsillar ulceration, iritis and the remains of a chancre are points of the greatest importance in determining the diagnosis. The true nature of the disease can always be disclosed by observation of the patient for a few days. Dr. Schamberg emphasizes "that it is injudicious to base a diagnosis of smallpox upon any one symptom. A case must be reviewed in all its aspects and diagnosis made from the ensemble of symptoms."

Chronic Gastric Catarrh.

Ewald (Peoria Medical Journal), says only two lesions require therapeutic treatment. They are 1, diminution in the secretion of HCl and pepsin; 2, weakening of the motor function of the gastric musculature. The disturbance of the secretory function of the gastric mucosa can be met in no better way than by the administration of HCl, given in sufficient doses so that the deficiency will be fully compensated for. The doctor administers three times after each meal at intervals of ten minutes as many drops of HCl in a glass of water as the patient can bear, that is, without having too sour a taste in the mouth, but this does not bring the stomach contents up to the normal. The author thinks it may be better to introduce with a stomach tube a 0.2 per cent. solution of HCl. Dr. Ewald has given as much as 300 c.c. of such a solution twice daily after the two larger meals and has seen excellent results follow. In recent years he has not prescribed pepsin because its secretion does not suffer in the same measure as that of the acid. With this treatment he also employs remedies which directly excite the activity of the gland cells. such as bitters, particularly condurango, which he specially prefers in infusion; 20 or 30 grams infused in 300 c.c. for 12 hours and evaporated to one-half that quantity by gentle heat. He advises this at the same time with some other remedy which increases the gastric motility and none here as efficient as strychnia in the form of tincture of nux vomica. The author puts 5 grams of tincture with 5 grams of HCl into the above infusion. Massage when skillfully performed, but only then, is valuable; he uses electricity by the intragastric method. Turck's pneumatic gymnastics of the stomach has not been tried by him, but he has the gyromele and though it appears dangerous he has never seen any bad effects from it. It should be used, however, with caution, for fear there may be some latent ulcer. The needle spray described by Einhorn has also been used by him. For removing fermenting masses he advises gastric lavage and internal antisepsis to limit the production of new fermentation. For this he employs resublimated resorcin, giving it in combination with bismuth salicylate, that is, 5 grams of resorcin, 10 of bismuth salicylate, with 15 each of bicarbonate of soda and sugar. The dose is a small teaspoonful every two hours. This does not interfere with the other remedies mentioned. Regulation of the bowels and diet is also mentioned. Meals should be moderate; the patients should not eat to a full satiety. Drinks should be always lukewarm; strong alcoholic and carbonated drinks should be excluded. Proper care of the teeth and mastication should be attended to and food selected that will be penetrated by the gastric juices, excluding thereform hard-boiled eggs, fat meats, and fat cheeses. The so-called red meat is sometimes bad on account of the high percentage of salts. The manufactured foods and those prepared from milk can be used to advantage. Fresh bakery products should be avoided and carbohydrates used with care. Milk is theoretically the best food, but it does not agree with everyone, but he speaks well of the use of evaporated and pulverized milk of which 100 grams correspond to about 1 liter of milk as being of value.

Angina Pectoris.

M. E. Nuckols [Virginia Medical Semi-Monthly Dec. 17, 1901] Angina pectoris is characterized by a definite group of symptoms. Pain is usually the most prominent but it is the character of the pain which is of so much value. It cannot be likened to any other pain, being sharp and stabbing, located behind the sternum (not in the heart), radiating upward toward the left shoulder, neck and head, and down the left arm into the fingers, and sometimes into the testicles, which may swell. There is no pain in the heart, but there is a feeling of depression or of something lacking in this region. The peculiarity of this pain is that it is accompanied by a feeling of constriction about the chest and neck, likened to the pressure of a vise. Balfour describes it as a feeling as if a mailed hand grasped the chest and squirted through its fingers flashes of agony. This is often accompanied by convulsive movements of the muscles of the whole body, but particularly of the chest, neck and arm. The expression is extremely anxious, manifesting an indescribable fear of impending dissolution.

The attitude is one of terror-stricken stillness. The body is covered with beads of sweat, and the extremities are cold and clammy. Strange to say, the pulse is, as a rule, unchanged. We have no dyspnea like that so often seen in heart disease, though respiration may be increased in frequency, and during severe paroxysms, temporarily suppressed. Pain is sometimes entirely absent, or may begin in the hand and extend upward. In these cases the retrosternal pain is not so severe. The cause has been variously ascribed to vasomotor spasm, cramp of the heart muscles (Osler), neuritis of the cardiac plexus and acute or chronic aortitis. The treatment may be divided into two parts: 1. During the attack. 2. During the interval. During the attack inhalatations of amyl nitrite. If these fail, use chloroform or ether by inhalation, and, as a last resort, give morphia and atropia hypodermically. Use hot applications over the region of the heart. During the intervals. (a) Hygienic and dietetic. Complete change in habits must be advised. Attention should be given to the bowels, to see that they act regularly. Avoid excesses of all kinds, particularly of eating and drinking. The diet should be regulated so that no digestive disturbances shall arise. Instructions should be given to avoid excitement and violent exercise. (b) Medicinal. Nitroglycerin should be given in full and increasing doses. If degeneration of the arteries or any tendency toward rheumatism be evident iodides should be given in full doses, extending over long periods, but always with an eye to the condition to the stomach.

Clinical Observations on Blood Pressure.

Carter [American Journal of the Medical Sciences,] after a series of investigations concludes: 1. The average normal mean arterial pressure in males in 166mm. Hg., and in females 113 mm. Hg.; 2. in acute nephritis the accompanying arteriosclerosis, if present, is of slight or moderate degree; 3. in acute nephritis the height of the blood-pressure varies, for the most part directly with the amount of albumin in the urine; 4. an acute parenchymatous nephritis complicating an acute infectious disease causes little or no increase in blood-pressure; 5. the average mean arterial pressure in chronic nephritis is about 62 mm. Hg., higher than that of acute nephritis; 6. there were no cases of chronic nephritis seen without an accompanying arteriosclerosis; 7. in artericselerosis it is only those cases in which it is extreme that the average mean arterial pressure is raised; 8. the most satisfactory drug for lowering blood-pressure, whether the increase is due to nephritis or marked arteriosclerosis is sodium nitrite, best given in two to three grain doses every two to four hours. It acts in about 26 minutes, causing a reduction of 10 to 15 mm. Hg., [in marked arteriosclerosis sometimes much more], the effect lasting one hour and 44 minutes, on the average; 9. when the blood-pressure is high and is accompanied by symptoms of uremia the best method of rapid reduction is phlebotomy—five to eight ounces, follownd by saline infusion [1,400 to 1,500 cc. of hot normal salt solution], and sodium nitrite in full doses. Clinically, also, there is almost invariable improvement; 10. blood-pressure in aortic regurgitation, whether complicated by nephritis or not, is low. If a mitral regurgitation also is present pressure may be nearly normal; 11. blood-pressure in all forms of anemia is below normal; 12. there is possibly a relation between lowered pressure in chlorosis and the production of gastric ulcer.

Insects and the Spread of Disease.

J. McFarland (Medicine, Jan., 1902), believes that certain insects may carry on their bodies disease-producing microbes and occasion infection by alighting upon wounds or indirectly by alighting upon foodstuffs. They may carry within their bodies germs which may subsequently be deposited with their feces; tubercle bacilli have been detected in the feces of flies fed on tuberculous sputum. Suctorial insects by biting a diseased animal may carry infection to the next animal bitten. They may take infectious germs into their bodies and transmit them to their offspring, bites of which are infectious. Insects may take in parasitic organisms and transmit them to other animals in some, changed form in which they are infective, for example, the change of the material organism in the mosquito's alimentary tract, the formation of "blasts," and their escape with the salivary secretion when the insect bites. In like manner is yellow fever transmitted, this transmission not being direct, but requiring an interval of ten days before the mosquito's bite is infectious. A third disease transmitted by the mosquito is filariasis. Insects, such as flies and roaches, may become infected, die, fall into foodstuffs, and thus impart infection to man. Flies have been known to die from the infection of bubonic plague.

Typhoid Fever.

Wasdin [American Medicine, Feb. 8, 1902], believes that there must be a colonial development of the organism other than

in the intestinal canal, as shown by the constant presence of the bacillus in the blood before its presence in the intestinal contents, its presence in the stools only at the end of the second week, and the presence of the diazo-reaction at this time most frequently. The non-presence of the organism in the blood current until after the advent of toxic symptoms, together with the constant presence of more or less marked signs of colonial development in the lungs, and the expectoration of members of such colony, show that this disease is essentially one of the respiratory tract primarily, the well-known symptoms of the second and third weeks being mainly secondary. If these observations are correct, treatment should be directed more energetically against the primary colony, although the importance of the treatment of the secondary intestinal colony is great. The application of benzyl-acetyl peroxid to the treatment of this disease has been attended with happy results. It has been used both for the primary and the secondary infection, as well as by means of hypodermoclysis to combat terminal expressions. As the mortality in typhoid fever depends mainly upon lung and intestinal fatalities, successful treatment of these conditions will bear happy fruit. Disinfection must also be carefully attended to.

Diet for Infants.

Winters' (Medical Record, Jan. 25, 1902), says: Chemistry, physiology, and chemical physiology, have furnished unerring guides for the feeding of children. The time when and what farinaceous substances should be given is wholly evident. Meat juice is contra-indicated in very young children, owing to its exciting effect on the nervous centers, and the loading of the system with extractives which tax the excretory organs. During all the years of early childhood, meat and its preparations should be given only sparingly on account of their over-stimulating metabolism, but chiefly for the reason that they create a distaste for cereals, fats, and fresh vegetables, thus depriving the system of materials needed to shield the proteids from oxidation that they may be stored for future needs, and of the necessary mineral salts which vegetables obtain direct from the soil. In a child, with its relatively large cutaneous surface and correspondingly rapid heat loss, the large demand for calories must not be covered by proteid to any considerable extent, otherwise there is a lack of disposition of proteid—or of muscle growth. Increasing quantities of carbohydrates and fats in the food decrease proteid metabolism: a more lasting deposition of proteids for future needs is thus brought about. To provide the mineral constituents necessary to maintain the normal reaction of the fluids of the body when these elements are being appropriated in large proportions for the growth of bone, muscle, etc., vegetables which obtain these elements direct from the soil must be consumed in fairly liberal proportions.

Autotoxemia in the Neuroses.

Butler (Journal of the American Medical Associaion Feb. 8, 1902) states that fatigue produces autotoxemia by the direct products of nerve waste and interference with the organs of sanguifaction and elimination through loss of central inhibitions. From the disturbance of the thermotoxic centers in nerve shock results the autointoxication underlying saburral fever. The symptoms may be those of profound depression or of convulsive and exciting types. It has been suggested that epileptic attacks were due to a proteid toxin and the acquired diathesis may become transmissible. In early life and sometimes in the adult the balance of consciousness is so disturbed by irritations from autotoxemia that relief produces a buoyance out of proportion to the elimination secured. The morbid irritations produce anxiety and uncertainty or a state of nervous adynamia and sometimes more deepseated disorder which will not yield to treatment of the primary cause alone. A common type is a disorder mimicking locomotorataxia, and often accompanied by convulsive attacks. Confusional insanity, transitory frenzy, melancholia, stupor, amnesia and in milder cases unilateral headache, dermatoses, irritable bladder, etc., are the expressions of the conditions. The autotoxemia may be due to inhibitory effects on the liver, kidneys, uterus, to emotional disturbances, to local irritations, as in eyestrain, adenoids, etc. Therapeutics will depend on the type. Diet, eliminatives and general hygiene is indicated in the milder types and in the deeper, removal from home surroundings.

Roentgen Rays.

Beck (New York Medical Record, Jan. 18, 1902) speaks of the different kinds of injuries from the Roentgen rays and says that it is difficult to explain their origin, but he thinks that it can best be done on the basis of clinical observation. Dr. Beck calls attention to the fact that burns should be treated as such and the main difference between the ordinary burn and tissue changes caused by the Roentgen rays exists in the later development of the latter. A peculiar chemical influence of Roentgen light is so exercised that the nutrition of

the cells is impaired and it is only when the impairment has reached a certain degree that the burns occur and they are influenced mainly by the power and amount of the rays and the susceptibility of the patient. The author thinks that from a pathological consideration rules may be deduced for the therapeutic utilization of the rays. The most obvious therapeutic treatment is that for hypertrichosis, but he gives quite a list of disorders which he thinks may be amenable to this agent, suggesting individualizing, using tubes of low vaccum and care in each case as to individual susceptibility. He thinks there is a positive future for the method. The patient, however, should be informed of the risks of burns in any case. The treatment of the Roentgen-ray burn is the same as that of any other. For the simple dermatos, or burns of the first degree, applications of Burrow's solution are most comfortable to the patient. In the bullous form, second degree, a xeroform gauze-dressing, after the blisters are opened and removed, is indicated for the first days. Later he recommends a dressing of a 10 per cent. xeroform lanolin ointment, which is changed daily, provided there is but scant secretion. The necrotic form, third degree, requires speedy removal of the modified tissues, the after-treatment being conducted as wound treatment.

Hepatic Syphilis.

Flexner (New York Medical Journal, Jan. 18, 1902). Syphilitic affections of the liver occur in a variety of ways; the occurrence of icterus in the course of lues indicates liver involvement, no definite explanation of which has been produced. That the condition is of specific nature is not probable,but upon what transitory changes, or effects of the action of the syphilitic virus, it depends, is wholly conjectural. The passive hyperemia of the liver is not a specific affection, but doubtless it arrises in consequence of disease of the heart and arteries, where the poison ordinarily produces alterations leading to circulatory disturbance. There is no uniformity of opinion in regard to ascites, but the predominance is in favor of its being present in syphilitic diseases of the liver, but under certain conditions only. It may be expected in general cirrhosis,and if the portal vessels are pressed upon by gummata, constricted by scars, or obliterated by endophlebitis. In gummatous hepatitis ascites does not appear unless there is concomitant disease of the kidneys or heart, or chronic indurative peritonitis. The syphilitic inflammations are referable directly, perhaps, to the action of the specific virus or poison. Possibly the toxins are derived from the growth of some specific organism. Flexner analyses the statistics of the Philadelphia Hospital from 1867 to 1901, and finds 88 cases of hepatic syphilis in over 5000 autopsy records. The types of the disease are the interstitial hepatic, gummatous, perihepatic and amyloid. The first made up about one-half of the cases, next to which in frequency came the gummatous form (23); perihepatitis was observed 16 times; amyloid disease 7 times. The so-called syphilitic scars were met with 38 times. It is a question whether they are to be regarded as healed gummata or not. It seems probable that these heal up, and the author reports a case indicating this. The outlook for syphilitic interstitial hepatitis is less favorable than gummatous disease, although if the condition is not advanced it is more favorable than non-syphilitic cirrhosis. Amyloid disease is also to be considered of serious import and yet it has yielded to treatment. The stage of infection to which hepatic lesions belong has been much discussed, and Flexner says that the profound lesions of hepatic disease will be found in association with symptoms of the tertiary stage; and while it is highly probable that the general cirrhosis appears at that time, the gummatous nodules and amyloid must belong to that period.

Human Tuberculosis from Cow's Milk.

Dr. Abraham Jacobi (Medical News, Jan. 18, 1902,) quotes a number of articles that have recently appeared in English and German medical journals with regard to the question of the possible organization of tuberculosis in human beings from cow's milk. Practically all writers are agreed that certain cases of human tuberculosis are etiologically connected with tuberculous cow's milk. There are many series of cases in infants reported in which this connection seems beyond doubt. This does not prove that the tuberculosis in infants originates frequently from cow's milk, but it does demonstrate that there is a certain amount of danger.

Dr. Jacobi himself has reported a case of ascites in which tubercle bacilli were demonstrated, though no tuberculous lesions could be found in any other part of the body. Other such cases have also been reported. It is probable that in these cases the only explanation that can be accepted is that tubercle bacilli have come from the intestines. This does not necessarily infer that there are visible lesions of tuberculosis in the intestines. Tubercle bacilli and other micro-organisms may penetrate

what to all intents and purposes so far as ordinary examination is concerned, is an unbroken mucous membrane. In Dr. Jacobi's case no tubercle bacilli could be found in the blood and there were no signs of miliary tuberculosis or of pulmonary tuberculosis, so that the bacilli surely came from the intestines. The intestine of young children is particularly predisposed to let bacilli pass. Hence, the frequency with which primary tuberculosis of the peritoneum occurs. As a matter of fact, peritoneal tuberculosis is nearly always isolated and tubercle bacilli are often able to find their way into the free abdominal cavity. In peritoneal tuberculosis the messenteric glands are not always, nor necessarily, enlarged. In a word, tubercle bacilli succeed in finding their way to the peritoneal surface without the production of visible lesions along the paths through which they have come from the intestine. Dr. Jacobi believes that the danger of contracting tuberculosis through the intestine is underestimated and is liable to be more so, because of Koch's declaration and its effect upon the public mind. Intestinal tuberculosis is rare, but even these rare cases should be prevented. Generalized tuberculosis when the peritoneum is also involved usually originates in the peritoneal cavity. The infection practically always comes from the intestine. No matter how few the cases, then, it would be difficult to overestimate the danger of intestinal tuberculosis.

The Differential Diagnosis of Smallpox.

MacCombia (The London Lancet, Dec. 28, 1901,) says that in the diagnosis of this disease the following rules should be observed: 1. It should never be forgotten that the initial symptoms of smallpox are most constant both in vaccinated and unvaccinated subjects. 2. When called to a case, the practitioner should never take for granted that the eruptions on the trunk is like the eruption on the face and extremities, but in every case he should examine the whole eruption. Disregard of this precaution leads to many mistakes. 3. It should not be assumed that because a case of smallpox has occurred in a house, therefore a vesicular eruption appearing on another inmate of the same house about the same time is smallpox. He has known cases of chickenpox and smallpox occurring simultaneously in the same house, and smallpox and enteric-fever cases in the same family at the same time. 4. It should be remembered that in a very large number of vaccinated subjects, smallpox is so mild that as soon as the eruption —consisting sometimes of not more than half-a-dozen spots—has appeared, the patient feels well. 5. Care should be taken to avoid ascribing the spots on the face in a mild case to digestive dirturbances, and sending the patient to the seaside for a little change of air.

He passes in review the diagnostic points between the disease and erythema multiforme, typhus, influenza, ptomain poisoning, roetheln, drug rashes, varicella, measles, syphilis eruptions, herpes, impetigo, eczema, urticaria papulosa, acne, rheumatic sudamina, glanders, and pyæmic skin eruptions.

Ocular Pain; Its Significance, Varieties, and Treatment.

P. Dunn (The London Lancet, Jan. 18, 1902). The following are some of the points brought out by the writer:

The absence of pain in inflammatory conditions of the eye may be looked on as a favorable sign. Thus, the pain of a glaucomatous attack is the index of the peril to which the eye is subjected, and marks out the line of treatment. In the case of iritis, so long as the pain continues no improvement can be expected; on the other hand, the cessation of pain indicates the commencement of the retroceesion of the disease and the progress toward recovery.

Ocular pain varies in intensity and with the disease; very little pain occurs in connection with conjunctival effections, the conjunctiva being sparsely endowed with common sensation. Any irritation of the cornea, however, causes most intense pain, which persists until the cause is removed. Iritis may or may not be painful; when the ciliary body is involved there is always tenderness of the globe on palpation. The pain in syphilitic iritis is generally persistent; it continues throughout the day and night until relieved by local treatment, such as leeching. In rheumatic iritis the pain is usually very severe, being much worse at night. Dry heat is the best local method of treatment. Much of the intense pain of acute glaucoma is due to the compression to which the ciliary processes are subjected during the attack. Iridectomy furnishes the only satisfactory method of treatment.

Insomnia.

David Inglis [The Physician and Surgeon] holds that no treatment of insomnia is likely to be successful which does not recognize the fact that all of our nervous processes are adjusted to periods of alternating activity and repose. Sleep by night presupposes activity by day.

It sometimes seems severe to make a man already depressed work like a hired man,

but if by doing so he can fall asleep on the spot like a hired man, the result is satisfactory. If work cannot be insisted on, strychnine in the morning, in positively stimulating doses, with a sedative at night, may be resorted to. Gout often produces insomnia by the toxic effects of the poison on the protoplasm of the brain elements. In some cases of beginning insomnia, the administration of a soporific to secure prompt sleep for several nights in sucession, aided by the wise use of suggestion, will often break up the trouble. For several nights thereafter any inert but bulky powder may be given as a placebo. Increasing the assimilative power of foodstuffs will often overcome insomnia, even in fat women, who, in spite of their appearance, are often poorly nourished. Fatty foods are the most effectual. Chloral secures sleep more promptly than any other drug, but is dangerous to use. Trional and sulphonal are the safest, and it is well to give the former in small doses at intervals during the day, with a double dose at bedtime. In the insomnia of old age a mixture of paregoric and aromatic spirits of ammonia is often very efficacious.

Bacteria and Tobacco.

Richard Travers Smith [Dublin Journal of Medical Science, January] in an interesting paper says:

"Time will only permit mention of one more industrial application of bacteria, for the list is hopelessly long to attempt completion. The one I shall choose is the manufacture of smoking tobacco, since its widespread employment appeals to the sense of both smokers and non-smokers. Before tobacco leaves are sent to the manufacturers they are fermented in heaps. Subsequently they are cured in a great variety of methods, in all of which fermentation is largely employed. The fermentations necessary to produce smokable tobacco are the work of bacteria. These bacteria have been the subjects of extensive experimentation, from which it has been concluded that the flavor of tobacco, far from being entirely attributable to the plant itself or the locality in which it is grown, is largely in the hands of bacteria. Dexterous manipulation of the varieties of bacteria isolated from tobacco in process of curing has enabled the industrial bacteriologist to impart the flavor and aroma of Havana cigars to tobacco leaves hitherto less highly prized."

Aural Complications of Influenza.

S. M. Smith [Philadelphia Medical Journal, Jan. 11, 1902]. "Hemorrhagic otitis" has long been known as the distinguishing feature of otitic influenza. Mastoid implication is, however, present in all severe cases, a large number of which requires operative interference, and meningitis, lateral sinus thrombosis, intracranial and extradural abscesses as sequellæ are encountered more frequently in each succeeding epidemic. It is well to examine the aural discharges for the presence of the bacillus of influenza. As regards treatment and prophylaxis, emphasis is laid on attending to aural complications at the very inception of the attack. Absolute rest in bed, with free diuresis, diaphoresis, catharsis and restricted diet, is followed by local measures, such as hot instillations, necessarily medicated. Blood-letting in front of the tragus, to be effective, must be early. As soon as the membrana tympani shows any distention it should be incised. Hot irrigations shoud be followed by thorough drying and insufflation with aristol or nasophen.

Percussion of the Lower Border of the Liver.

Abrams [Medical News, Feb. 15, 1902] believes that a good rule to follow is never to declare the liver to be enlarged unless it is palpable; but a dislocated liver may be palpated, although it may not be enlarged; again, rigidity of the abdominal walls may obscure the results of palpation. A simple method of mapping out the lower border of the liver is the following:

The patient inclines his body backward as far as possible, the body being supported by means of the hands resting on the hips. Percussion, which must be light, will determine the lower hepatic border with minimum difficulty. If strong percussion is used in mapping out the lower border, the air contained in the neighboring viscera will be set in vibration, and the desired result—elicitation of a dull sound—will be defeated. One point in the consideration of this subject must not be forgotten, viz., the necessity of clearing the bowels by free purgation before the examination. In conclusion, two facts are emphasized: 1. The patient must be cautioned to take no inspiration before contracting the abdominal walls, for by doing so the liver will be dislocated downward; 2. In practicing percussion, the finger must be firmly imbedded in the abdominal wall, otherwise the blow will not be directly transmitted to the liver.

Syphilis.

Lydston (New York Medical Journal, Jan. 18, 1902) mentions the importance of the general hygenic management, care

as to elimination by free ingestion of fluid, by baths, attention to the bowels, etc. In giving iodids he thinks the best course is often to give the daily dose in a large quantity of water and instruct the patient to drink the entire amount, aglassful at a time, at intervals during the twenty-four hours. In this way iodism may often be avoided. Digestive disturbances require attention, and sometimes experiments with the various forms of mercurial salts may be necessary to see which may be best employed. In some cases where the lesions, especially of the mucous membrane, are very resistant and the patient does not tolerate mercury and the iodids, chlorate of potassium, given in 10-gr. doses four times a day largely diluted in water, will be found very beneficial. Tonics, of course, should be employed, arsenic with the mixed treatment is usefnl not only in preventing iodism but in its general effect on the system. The cardinal principle in the therapy of syphilis is that the physician should remember that he has to deal with three factors: 1. A specific disease to be controlled by specific medication; 2, a distinct individual personality in each patient; 3, the results of anti-specific medication.

Heart Strain; Its Results and Treatment.

G. Carter (Medical News, Jan. 11, 1902) states that the study of heart strain is of comparatively recent date. The effect of heart strain is seen in two ways: 1. By overwhelming disturbance, causing immediate faintness, possible paralysis, and death; 2. A more gradual dilatation from lighter and daily strain. When the shock does not terminate in the death of the individual at onee, the normal irritability of the heart is in a great measure lost. The heart muscles are in the condition of any other muscles which are unduly strained; the rhythmic action becomes feeble, tremulous, and imperfect. In the case of the heart the condition is one of profound asthenia. There are two periods of greatest danger; one is at night, during the hours when the periodic distress returns and when respiratory movements are most sluggish; the other is when, upon arising from a recumbent position, the column of blood in the upper part of the body is suddenly thrown back upon the enfeebled ventricles thus diminishing brain pressure. Persons leading sedentary lives are more liable to heart strain than those in more active life. The treatment should be prophylactic, hygienic, dietetic, and medicinal. The first two classes include a well-ordered life free from all excesses. There should be freedom from all pressure over the heart from dress. All forms of food which have a tendency to form gas should be avoided. Complete digestion should be accomplished before taking a second meal into the stomach. Where the work of the heart is extreme, liquids should be limited. If blood-pressure is low, liquids should be administered. In cardiac asthenia with dilatation, a dry diet is indicated. Supper should be the lightest meal of the day. Before medicinal treatment is instituted, the cause should be removed if possible. In asthenia, digitalis and strychnine are the most important remedies. For hypertrophic overaction, aconite is useful; but caution should be observed. Valauble remedies for distress at night are belladonna, hyoscyamus, and cannabas indica.

MISCELLANEOUS.

Shock in Abdominal Operations.

Hawkins Ambler, (British Medical Association, Obstetrics and Gynæcological Section; Lancet). The author quotes Erichsen, who defines shock as being "due to a general exhaustion of the nervous centres consequent upon an extremely violent afferent impulse," and points out that shock is not now the mystery it used to be regarded, the work of Sherrington and Cribb having done much to help our knowledge of it. The abdominal surgeon is prone to meet with cases of shock, because his patients have often large tumours which must have an effect on the heart, and are often anæmic from severe or prolonged hæmorrhage. Sherrington opened a new field in the investigation of shock by his observations on the specific gravity of the blood in animals subjected to operations. Roughly he found that the specific gravity rose an hour and a quarter later (in a specific instance from 1054 to 1064, gradually returning five days later to 1055). This means that a certain quantity of the plasma must be withdrawn from the blood, and, therefore, that a condition of "drying" of the blood or apoplasmia results. The amount of this apoplasmia depends somewhat on the severity of the lesion, and so must be reckoned with as a result of an operation attended by shock. Again, Cribb, in his writings, quotes Hodges' investigations on the nerve cells of the central ganglia as a result of fatigue, and these facts point to the probable changes in the nerve centres when shock appears as a manifestation of exhaustion in them. Shock also must be clearly differentiated from acute sepsis, as may occur after ab-

dominal operations. Deaths occurring within forty-eight hours after abdominal section are often put down to shock, when acute sepsis, as shewn by the presence of bacteria in the peritoneal fluids and in the mediastinal lymph channels, is the real cause of death (Durham). The important factors which aggravate shock in abdominal operations are the time element and its effect on the vasomotor mechanism, the engorgement of the splanchnic area (a man may bleed to death into his splanchnic area without a drop of blood leaving the circulation), the hæmorrhage due to the operation, and the constant exudation of plasma leading to Sherrington's apoplasmia. A due regard for these points gives the clue to the treatement and the prevention of shock. First the general health of the patient must be attended to before the operation, and especially mental anxiety concerning the operation avoided. Next the author believes there is a great tendency to starve and purge the patient too much. The patient, after a course of hot baths, purges, starvation and mental anxiety, is often in a state of semi-collapse before getting on the table. Such a condition may be avoided by a saline rectal injection or an enema of two ounces of brandy with four ounces of hot water beforehand. As to the anæsthetic, it is true that general anæsthesia alone leads to shock, and it may sometimes be of benefit to eliminate this by the use of a local anæsthetic such as B eucaine. However, experience is wanting in the use of local anæsthetics for abdominal operations. In the author's opinon the prime element in the causation of shock is that of time, and he would explain many of Tait's brilliant successes by the rapidity with which the operations were performed, in spite of the want of strict asepsis as we now understand it. Chilling of the surface must be avoided, and so the temperature of the room and the use of hot water tables will greatly help to diminish shock. Also flushing the peritoneum is often a distinct gain to the patient, as shewn by the deepened respiration and improvement of the blood pressure, not to speak of the stimulation of the sympathetic system, even though it may lead to some peritoneal irritation. After abdominal operations thirst is the first thing complained of by the patient, and Sherrington's work gives us the key to this. The blood becomes inspissated, and is definite standard evidence of shock, the cry of the circulation for more fluid. This condition must be met by giving fluids directly after operations. If there is any vomiting, rectal saline injections must be given, slowly run in as high up the bowel as possible by means of a tube and funnel. If there is no vomiting, hot water may be slowly sipped by the mouth. If rapid effects are required, the saline solution may be injected into the cellular tissue beneath the breast or in the axilla, or, what is still more rapid in effect, into a vein. In vasomotor paralysis, where the blood finds its way into the splanchnic area, the patient is practically in the same condition as one after severe hæmorrhage—his oxygen carriers are largely out of of the general circulation. Saline solution used as the occasion demands will largely combat this condition. These means for the prevention of shock are infinitely better than the use of drugs, but these latter cannot entirely be dispensed with. Atropine, strychnine, digitalin, and morphine combined with atropine, all have their uses in cases of established shock. It must be borne in mind that all methods of treatment which aim at stimulation must be combined with feeding. "Exhausted ill-nourished organs are not to be bullied without grave risk being incurred." Finally, the well-known minor points, such as the maintenance of the body-heat by hot water bottles, blankets, etc., raising the bed-foot twelve or eighteen inches, must be attended to, and will do much to maintain a mean efficient blood pressure.—*Edinburgh Medical Journal.*

Detection of Locomotor Ataxia in its Early Stages.

A. Fournier (Internat. Clin., 11th series, vol. ii, p. 185, July, 1901), in the course of a clinical lecture, refers to the means of diagnosing locomotor ataxia in its earlier stages when the ataxia is latent. There are six special tests for bringing to light the earliest signs of inco-ordination. The first is Westphal's sign or the absence of the knee-jerks, found in two cases out of three in the preataxic period. Then there is Romberg's sign or oscillation of the body in the erect posture with the eyes closed; in the early stages this sign may take the form of nothing more marked than a slight balancing motion. Thirdly, there is the staircase test, or the difficulty experionced in going down stairs. Fourthly, the leg-crossing test consists in the fact that in executing this movement the patient passes his leg through a segment of a circle of unnecessary magnitude. Fifth is the test of walking and halting at the word of command, manœuvres which are badly executed by the patient in the preataxic stage; turning quickly round at command will be done specially badly. The most effective test, however, is the sixth, viz., standing on one foot first with the eyes open and then with

them shut; it may reveal a muscular disorder which has eluded many other modes of examination, and it is often most decisive. All the six tests, however, ought to be employed for the early detection of locomotor ataxia.—*British Medical Journal.*

The Action of Narcotics.

One of the most remarkable and interesting developments from Ehrlich's lateral chain theory as to the action of bacterial toxins and the production of antitoxins, is the work on the influence of narcotics upon the tissues and on their manner of action.

Hans Meyer has in several communications given very convincing evidence that the narcotics act by combination with certain portions of the tissues of the nervous system, and his work has been confirmed by several other investigators. Mayer [Archiv f. exper. Pathologie u. Pharmakologie, Bd. XLVI, Hft. 5 und 6] now adds a further confirmation of his previous statements, reporting his results from the determination of the co-efficient of combining power of various narcotics under the influence of changes of temperature and demonstrating that they follow the course which is necessary if his theory is correct; and, in the same journal, Archangelsky gives reports of rather elaborate investigations concerning chloral hydrate and acetone, in which he shows that, after the administration of these substances up to the point of the production of narcosis, they may be found in the nervous system in much larger amounts than elsewhere, and that, as their effects pass off, they are retained in the nervous system longer and in greater quantity than elsewhere. This also points strongly to their having directly combined with certain elements in the nervous sytsem and having produced their effects in this way,

A fact which makes this seem still more probable, one which has long been known, is that a number of the narcotics, at least, cause demonstrable alterations of the tissues; and it is,of course, probable that they do this through direct chemical action upon the latter, and not, as was at one time taught, through mere reduction in oxidative processes, practically all research work pointing against the latter view. This further proves that the influence of narcotics does not cease with the disappearance of the narcosis, and gives us a broader and more rational understanding of the immediate and more remote dangers connected with their use. At the same time it adds some further emphasis to the fact that physiological chemists now, as probably they will in the more immediate future, contribute more interesting and suggestive facts than any other general class of investigators; a fact which is not yet sufficiently recognized by most of the best teaching institutions in America or England. Were it recognized, there would be a more active and spirited effort to broaden the views of students in such matters and to build up a larger and more productive body of research workers in this line in our land.—*Philadelphia Med. Journal.*

The Contagiousness of Psoriasis.

Psoriasis is one of the most common of skin diseases, but one the origin of which is still obscure. The question is frequently asked by patients, "Is it catching?" and the invariable answer is "No." But are dematologists justified in making such a dogmatic statement? In 1889 a French physician, Destot sacrificed his arm and inoculated it with a psoriasis scab. In a few days an eruption appeared having all the characteristics of psoriasis, and this eruption recurred four times in two years. The diagnosis was probably correct, but, as in all similar cases there is always the possibility of coincidence.

A similar case has been recently reported in which a man is supposed to have acquired psoriasis through the operation of tatooing, he not having suffered from the disease previously. On the whole we cannot regard the evidence in favor of the contagiousness of psoriasis as conclusive. One of the chief arguments against this view being the fact that it is very common for one married person to have the disease for years without passing it on to the other.—*Medical Press and Circular.*

The Treatment of Pyloric Cancer.

For some years past surgeons in various parts of the world have exercised their ingenuity in devising measures having for object to obviate the distressing consequences of cancer affecting the neighborhood of the pylorus. The symptoms associated with cancer in this situation are almost entirely due to the mechanical obstacle to the onward passage of the gastric contents created by the resulting stenosis. At first surgeons restricted their efforts to removing or circumventing the obstacle, either by manual dilatation, as suggested by Loreta, or by one or other method of gastro-enterostomy, thus short circuiting the upper part of the alimentary canal. The study of the post mortem appearances subsequently emboldened surgeons to go a step further, and by removing the diseased portion of the stomach to attempt a radical cure. Although, so far, the results of this

form of surgical intervention have not realised the, perhaps, too sanguine hopes of the operators, the measure of success has been sufficient to justify further observations. At present it is open to question whether the extra risk attending the major operation of pylorectomy, are compensated by greater comfort and prolongation of life as compared with the relief afforded by the comparatively mild operation of gastro-enterostomy. The relief to the urgent and distressing symptoms of pyloric stenosis afforded by the latter operation is immediate and pronounced, and the only drawback to its usefulness is the ephemeral duration of the improvement. In view of the extremely unfavourable condition of a large proportion of patients suffering from gastric dilatation following pyloric cancer it is urged by some eminent surgeons that gastro-enterostomy ought always to be performed in the first instance, advantage being taken to the subsequent improvement in general health to attempt the radical cure later on. Against this suggestion must be placed the fact that, as it is, these cases do not as a rule come under surgical treatment until the progress of the disease is such as to defy its entire eradication and any further avoidable delay is therefore to be strongly deprecated. This brings us to the question of diagnosis. Here, as in so many other departments of surgery, surgeons complain that they are not asked to operate until success is jeopardised or rendered impossible by the extension of the growth. Physicians defend themselves by alleging the extreme difficulty of the making an early and trustworthy diagnosis, and it caunot be denied that these cases do sometimes present well-nigh insuperable obstacles to a correct diagnosis. If we await incontrovertible evidence of the localisation of the disease in the region of the pylorus it will in the majority of instances be too late for effectual surgical intervention. It is open to question too whether further experience will enable us to surmount this difficulty which appears to be inherent to the anatomical circumstances. The only alternative is to cut the Gordian knot by having early recourse to an exploratory incision in all cases presenting the classic symptoms occurring in patients at what we may call the cancerous age. Special importance is attached, in the diagnosis of cancer, to the absence of hydrochloric acid in the gastric contents. In the discussion on a paper read at the last meeting of the Clinical Society of London by Dr. Moynihan, an abstract of which we published last week, it is pointed that in 70 per cent. of the cases of gastric cancer the growth is so situated as to allow of its extirpation, and further, there is a curious absence of secondary growths in the liver. The present attitude of surgeons towards operations for cancer of the stomach, as was pointed out, is very much that which they took twenty years ago towards removal of the breast for cancer. Little by little the scope of the operation was enlarged so as to include the lymphatic area, with proportionally more favourable results. No doubt in the near future they will follow these lines in dealing with cancer of the stomach, removing lymphatic and other possible sources of recurrence, and thus advancing towards the object which they have in view—the radical cure. —*Medical Press and Circular.*

Puerperal Fever.

A. Hegar (Munch. Med. Woch., September 17, 1901) includes among the sources of infection suppurating and putrefying wounds, abscesses, purulent catarrh, lochia, peritoneal exudation, turbid fluid found in the connective tissue spaces in erysipelatous and phlegmonous processes, and nychia, while to dirty clothing, neglected condition of the external genitals, and of the surroundings of the anus he accords a place in another category, but the great source of infection lies in the hands of the medical attendant and of the nurse. The conditions of the genital canal are favorable to the development of streptococci, while the general disposition of the body toward septic absorption is frequently heightened. Hegar describes in detail all the factors which lead to the development of the infection, and pays particular attention to the want of free drainage for the lochia, which is so frequently met with. Obstruction by retained portions of membrane or placenta, or by blood clots, reflex contractions of the sphincter vaginæ is responsible for this deficiency at times, but he believes that sutured tears of the perineum, when the suture includes but little more than the skin, while the rupture extends until high into the pelvic floor, and thus a blind space is formed in which the fluids stagnate, are most frequently the starting point of the coccus infection. Under certain circumstances these may be a sort of safety valve, and lead the parturient woman past all these dangers, save when the organisms introduced are very virulent, and these circumstances, he says, consist in good uterine contractions, only moderate stretching of the cervix and the vaginal vault, with a small fœtal head, or a rapid passage through the pelvis, no external or internal obstruction, and the natural flow of the blood and

lochia, no marked fall of the intra-abdominal pressure, and in a plentiful lochial discharge during the first few days. He proceeds to describe the different effects the invasion of the parturient genital canal by streptococci may have. He discusses the pathology of phlegmonous processes affecting the parametric tissue; the local invasion of various tissues of the pelvis, the connective tissue, the secondary affection of the tubes and ovaries, and of the surrounding folds of peritoneum. These processes, he states, may remain circumscribed, and the inflamed appendages surround themselves with encapsuled exudation, and thus limit the extension of the local damage. He next deals with the invasion into the endometrium; and next with the pathological processes in the uterine vessels. In turning his attention to the clinical aspect of these conditions, he reminds us of the high fever, the frequent pulse of low tension, the rapid respirations and slight cyanosis, the dry tongue, and the marked effect on the nervous system which characterise septic fever. Of the so-called "milk fever" he says a few words. The pathology of this condition is not understood, although he says that without doubt stasis and obstruction of the excretions play a part in the causation. He considers that the prognosis of septic fever in progressive processes in the connective tissue or in breaking down thrombi is fairly hopeless, although marvellous recoveries occur occasionally. We do not possess a reliable antistreptococcus serum, and quinine and alcohol usually prove themselves useless. Circumscribed phlegmons and peritonitis offer a better prognosis. In discussing the prophylaxis, he realizes the difficulties which beset the general practitioner in dealing with the poorer classes in their own homes. He deals with the question of abstaining from attending confinement cases when the practitioner is brought into contact with other septic conditions, and warmly advises the utmost care under all circumstances with respect to clothes, hands, etc. He approves strongly of indiarubber gloves for the practitioner. Lastly, he speaks very definitely and with excellent precision on the value and technique of intrauterine douching and drainage. The former he carries out at least once every hour, and sometimes three times, using chlorine water, diluted with 3 to 7 parts of sterile water. With the combined use of these methods, he believes, that much can be accomplished if properly carried out,—*British Medical Journal.*

Treatment of Skin Affections by Gold.

Hearing a good account of the use of fluid air in skin affections, E. Saalfeld (Therup. Monats., July, 1901) applied this remedy to five cases. These cases included 1 of lichen ruber planus, 1 of eczema lichenoides, 1 of tylosis of the hands, 1 of warts on the dorsum of the hands, and 1 of a soft sore. The temperature at which air is made fluid is—190 deg. C., and the sudden cooling down of a vessel into which the fluid is poured was shown by the bursting of a glass vessel into which he wished to transfer the fluid. He applied it, by means of a small swab, twice to the back of a mouse; the skin became of a leathery hardness, and the animal died ten minutes later from shock. The same hardening of the skin took place in a rabbit, and this disappeared after a day or two. The application to the patients caused burning and itching which lasted from fifteen to thirty minutes. After an hour or longer a blister rose, and on puncturing this, plentiful serum escaped. The secretion gave rise to a crust forming, which remained from one to three weeks, after which in the case of the lichen, the eczema, and the tylosis, the skin healed up and appeared normal. The warts were removed, by a process of falling out, in a few hours. The soft sore disappeared in about four days. As fluid air is expensive, in spite of the American claim that it is the same price as "seltzer water," he attempted to use a mixure of chlorœthyl, and chlormethyl (15 per cent.), which is known as "metœthyl." This freezing mixture gave him excellent results in some chronic infiltration affections, in eczema lichenoides, in lichen planus, and in tylosis. Further, he reports that in leucoplakia of the tongue, he found the spray mixture of great value, and advises the use of the knife to shave the surface flat, when the tongue is sufficiently but not too intensively frozen. *British Medical Journal.*

Malaria.

The chief interest in connection with malaria at present centers in the relation of this disease to the anopheles mosquito. Mauser, for example, allowed himself to be bitten by mosquitoes fed in Rome on a case of tertian malarial fever. The period of inoculation was between 10 and 16 days, he then developed fever and the parasites were found in the blood. Nine months later, when he had been apparently cured by quinine, he spontaneously developed malaria. Young stated in a discussion before the British Medical Association, that in Hong Kong the occurrence of malaria was always associated with the appearance

of the anopheles mosquitoes; and Manson urged that the natural conditions antagonistic to this insect should be discovered and employed to exterminate them. Fernside stated that it was impossible to eradicate the mosquito in India, because to do so would destroy the rice swamps. Natal stated that the anopheles is attracted by dark colors and repelled by light colors, a hint that may be of practical use. On the other hand, Egbert states that in the mountains of Honduras at an altitude far above the mosquito belt malaria, fever of both the quotidian and tertian types is frequent, and he thinks it is propagated by fleas. The prophylactic treatment, of course, consists in avoiding mosquito bites, for which Bras employs the punkah or the electric fan, and Macgregor recommends extermination by filling the swamps or covering the pools with kerosene. He warns that results should not be expected for 2 or 3 years, and in the meantime prophylactic doses of quinine should be employed. Ewing contributes a valuable study of the life history of the malarial parasite which serves to show how incomplete is our knowledge of this organism at present. The relation of quinine to malarial hemoglobinuria is still unsettled. Klein reports 15 cases in which this complication followed almost immediately the administration of quinine. He cautions against the careless administration of the drug in large doses, and thinks that black water fever is the result of poisoning by it. Smith and Taylor report 2 cases, one in an officer who had been taking quinine in moderate doses for a long time; the other in a negro soldier. The parasites appear to have been exceedingly few in the blood. Two extraordinary complications are noted. The first observed by Mellroy was a negro who went into a state of coma lasting 7 hours; bullae developed upon the knees, and 4 weeks later they became gangrenous. The estivo autumnal parasites were found. The second, observed by Ewing, was a girl who was brought to the hospital suffering from fever, vomiting, and constipation. There was considerabls albumin in the urine, and a diagnosis of typhoid fever with acute nephritis was made. At the autopsy the renal tubules were found packed with malarial parasites. Ewing concludes as the result of a study of recorded cases, that malaria may produce acute degeneration of toxic origin in the kidneys or focal necroses with numerous hemorrhages, and the parasites may be massed in the renal capillaries, causing hemorrhage and thrombosis. The last form occurs only in estivo autumnal infections.—*Philadelphia Medtcal Journal.*

Tetanus after Laparotomy.

Coe (Amer. Journ. Obstet., September, 1901) reports 2 cases of tetanus which occurred in the General Memorial Hospital, New York, at eighteen months interval; there was no assignable cause. The hospital was opened in 1887, and conditions are very aseptic; in both cases the operations were "clean," and both were in Coe's wards. The first operation was the removal of a double salpingitis with cystic ovaries. There were no complications at the operation; convalescence was without fever. Stiffness of the neck was left on the twenty-first day, trismus next day. Death occurred on the thirty-sixth day; serum injections proved unavailing. The second patient underwent panhysterectomy for fibroid uterus and diseased tubes. She did well till the ninth day, when stiffness of the jaw set in; on the tenth day she could not swallow; 50 c.cm. of serum were injected into the veins; general convulsions occurred in the night afterwards; a second injection was made; death occurred on the eleventh day. Both patients were hysterical, so that diagnosis was obscure at first. *British Med, Journal.*

Night Sweats in Phthisis.

All physicians know the difficulty of keeping the night sweat of phthisis in control. Almost every known remedy has been tried since the Greeks used agaricin down to the present. Graves and Stokes used Dover's powder, which in time gave place to mineral acids, zinc and belladonna, atropine, and a host of other specifics. To the long list of Nolda adds tannoform, the external use of which he recommends. In seven out of eight cases in which he had the front and back of the thorax dusted with powdered tannoform it checked the sweating (Berl. Klin. Woch.). This method of treating the symptom has the advantage of not interfering with the digestive function, which is usually so imperfectly performed in such cases, neither does it in any way preclude the use of any of the other antisudorifics. The power of itself should prove an agreeable application to the skin and promote the comfort which is such an essential factor in producing sleep in such cases.—*Medical Press and Circular.*

Infection of Typhoid Fever from a Corpse.

W. Furnrohr (Munch. med. Woch, June 18th, 1901) finds that only two cases of typhoid fever infection from a corpse have been reported, one having occurred in Giessen and the others in Erlangen, where an assistant died of the fever which

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upon the respiratory tract is indisputable. It allays the cough and respiratory distress of bronchitis, winter cough, pneumonia and influenza. It invigorates the whole system too.

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he acquired at a post mortem examination. Furnrohr was engaged in performing a post mortem examination on April 17th, 1900, on a case of typhoid fever, and states that he was careful with regard to his hands. Three weeks later he was taken ill, and was admitted into the hospital, where he remained during the attack, and during a recurrence. The cause and symptoms of the illness left no doubt that the diagnosis of enteric fever was correct. The case, examined in April, was traced to a source at some distance from Erlangen, where he was, and there was no other case either in the town or in any place where he had been during the few weeks preceding his illness. He therefore concludes that he must have become infected at the post mortem examination.—*British Medical Journal.*

The Inadequacy of the Lance.

In the earlier days of the war one of the illustrated papers depicted two Boers, riding on the same horse, being pierced through by the lance of a British soldier. The illustration did not give one the idea of the lance being a gentle weapon, but we understand that the report furnished to the German Government by the medical expert sent out by them to South Africa is to the effect that the lance is too gentle a weapon to immediately stop a man or disable him for a reasonable time. The medical man in question, Dr. S. Schaffer, tells his Government that the lance is such a humane weapon that its efficacy in real warfare is greatly diminished, and therefore, if the German cavalrymen are to have a useful weapon in the lance the shape of the point must be changed; it certainly must not remain a round-pointed weapon. In Dr. Schaffer's report he gives details of the examination of several Boers who had been pierced through by British lances, and his opinion is that because of the roundness of the point it is possible for the lance to penetrate internal organs without very severe injury. In fact, the lance neither stopped nor fatally injured a large number of the Boers whose bodies had been penetrated by that weapon. Since the war the object of bearing weapons is to kill, or at any rate to disable, the sooner the lance is transformed into a more lethal instrument the better.—*Press and Circular.*

The Differential Diagnosis of Smallpox and Chickenpox.

In a letter addressed to a contemporary, Dr. G. S. Perkins calls attention to a simple means of distinguishing chickenpox from smallpox, which deserves to be more widely known. He points out that the vesicles in chickenpox are unilocular, whilst in smallpox they are multilocular. The practical result of this pathological fact is, that, if a chickenpox vesicle be pricked with a needle its contents can be completely evacuated and the cell will collapse, whereas in smallpox if one makes twenty pricks with a needle the vesicle will not collapse, because, being multilocular, it is impossible to empty it. There are of course, many other points of difference between the two; indeed, smallpox is only likely to be mistaken for the less serious malady when the practitioner is not alive to the possibility of a mistake in the diagnosis. In smallpox, even in its modified form, varisloid, the initial constitutional symptoms are early and well-marked, with a considerable rise of temperature and cerebral disturbance. In smallpox the eruption is most abundant on the face and limbs, whereas in chickenpox it is most abundant on the trunk, and its distribution is more discrete and general. Moreover, in chickenpox the eruption appears in crops and not, as in smallpox, within a few hours of the first appearance of papules. Then, too, there is the characteristic fall of temperature on the appearance of the vesicles. An absolutely characteristic feature of chickenpox is the appearance on the body of vesicles of different degrees of evolution, some being fully matured, while others have just made their appearance. In spite of these usually very distinctive features cases now and then occur in which even the most experienced may hesitate to formulate a definite opinion. In such cases twenty-four hours' observation will almost invariably clear up the mystery, and allow of a correct diagnosis.—*Medical Press and Circular.*

Carbolic Acid as a Dressing for Burns.

On several occasion in the past the application of pure carbolic acid has been recommended in the treatment of burns. In view of the active escharotic properties of this substance, the idea has never appeared to commend itself for adoption, but of late its use has again been advocated by practitioners in various parts of the world. Among recent advocates of the treatment Dr. Muench, of Washington, asserts that the application of the pure acid brings about healing much more rapidly than any other method of treatment. It also presents the advantage of suppressing the pain associated with this form of traumatism, in virtue of its analgesic action. Dr. Muench states that the acid coagulates the serous exudation, forming an imper-

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suggesting the articles of food to be allowed or prohibited in several of these diseases. A book of these Dietetic Notes, each note perforated and convenient for the physician to detach and distribute to patients, together with a pamphlet treating of "**Renal Derangements**" may be had by addressing:

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meable layer which effectually protects the injured surface from contact with the air, thus fulfilling one of the most important indications in the treatment of burns. He has employed this treatment in burns of considerable extent without ever having observed symptoms of absorption or the undue formation of cicatricial tissue. In the face of this evidence it must be conceded that the application of the pure acid is at any rate, devoid of injurious consequences, and we commend it to the notice of our readers who have much experience of this class of injury.—*Press and Circular.*

Fear as an Element in Disease.

Fear has been credited with considerable influence as a determining factor in the production of, or at any rate in predisposing to, disease, not only of the nervous system but of all kinds, nevertheless it is in the department of neurology and pyschiatry that the most telling and disastrous effects are met with. Fear, however, is a negative rather than a positive condition, indicating, as it does, a lack of control on the part of the higher psychical centres, associated, it may be, with undue irritability of the purely perceptive area of the brain. The foundation of all fear has for its basis a presentiment of danger. Now this presentiment is subject to extreme variations of intensity in different subjects, according to their experience, judgement, and self-control. It is curious to note that experience and inexperience often lead to the same result, though in widely different ways. Timidity in a child is the safeguard provided by natnre against inexperience, and it serves the purpose, more or less efficiently, of protecting the child against contingencises which experience would recognise to be real—or the reverse. Owing to the absence of acquired control *qua* judgment in the young the effect of fear are much more violent and perturbing. Under ordinary circumstances fear, in the adult, has its limits, limits which are only exceeded when the exciting factor is of such magnitude or so unfamilar as to overrule the judgement or to reduce the adult to the mental state of an inexperienced child. For this reason emotional disturbances due to occult and purely psychical causes may find the adult as lacking in self-control as the child. When we consider the clinical manifestations of acute fear, their extraordinary comprehensiveness, their violence, and the perturbation of organic functions, of which they are the outward and visible manifestations, it is easy to conceive that the paroxysm leaves the organisms in a debile and prostrate condition, and brings into prominence any latent weakness in functional control. On the other hand, it may fairly be argued that the subjects of these violent emotional disturbances are thereby stamped as neurotic; indeed fear, when it reaches an extreme degree, is distinctly a pathological factor.—*Press and Circular.*

How Diphtheria is Spread.

From time to time there are reported incidents which display the profound ignorance of many of the poorer classes with regard to the spread of infectious diseases. In the case of diphtheria it often happens in the heart of London, as elsewhere throughout the United Kingdom, that numbers of children visit the body of a playmate who has died of that terribly infectious disease. Again and again official investigation has shown that social gatherings in infected houses have been one of the active causes in fomenting an outbreak. Sometimes a prayer meeting is held in the house of the bereaved friends, but we are glad to learn that the custom is being abandoned among the miners of Dowlais, under the advice of Dr. Thomas, the Merthyr Medical Officer of Health. That gentleman states, however, that the practice of viewing the body of the infectious dead is still very common. In some instances he had heard of the children of neighbors actually being allowed to kiss the dead body. Comment on such a state of affairs is needless. How are the poor to be educated on such matters, which are of vital importance to their own welfare? A general knowledge of the laws of health and of diseases, with special attention to infection, should form part of the education of every school child. At any rate it cannot be too widely known that it is unwise to kiss anyone who is suffering with, or has lately recovered from, a sore throat of any kind whatever.—*Medical Press and Circular.*

Nature's Surgery.

One occasionally meets with remarkable instances of natural cures in dangerous conditions; we have ourselves known of a case in which a strangulated inguinal hernia, for which an operation was refused, cured itself, and, what was more curious, the resulting fæcal fistula underwent a similar cure without surgical aid. A startling instance of what may be called nutural surgery was recently reported by an American surgeon named Wallace. His patient was a young man, aged 22 years, who had had several attacks of appendicitis. It was finally decided to operate, but 24 hours before the time appointed the patient passed

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his appendicitis *per anum*. It was three and a-half inches in length, and consisted principally of the mucous and submucous coats. It was perforated near the distal extremity and contained several concretions, one of which protruded from the perforation. During the attacks the tumor was in the right inguinal region. The abscess probably broke into the cæcum, carrying the appendix into the head of the colon. This was a very acute appendicitis, with perforation of the appendix, abscess formation, and neurosis of the cæcum—a most dangerous condition, which was cured by a fortunate operation of nature.—*Press and Circular.*

Artificial Abortion: A Safe and Sure Method.

Oehlschlager (Centra blatt f. Gynak) reviews the accepted indications of artificial abortion, which he classes as follows: 1, Cardiac deficiency with tendency to hydropic accumulations, Olshausen; 2, advanced pulmonary tuberculosis; 3, nephritis; 4, cancer of the uterus and irreducible retroflexion; 5, pelvic deformity of such a character as would constitute an absolute indication for Cæsarean section, if this alternative is refused by the prospective mother; 6, uncontrollable vomiting of pregnancy.

Oehlschlager recommends the following mode of procedure, which he has employed for many years, and which in his hands has never given rise to any untoward complications after securing the assent of a competent colleague. A curved metallic catheter of about two millimeters diameter is passed into the uterine cavity and clear up to the fundus—which is a very important condition of success—and by means of a closely fitting syringe, from three to four grammes of tincture of iodine is injected. The catheter is now withdrawn, and an ordinary dry tampon inserted up to the cervix to avoid unnecessary cauterisation of the vagina. On the third day following the injection blood begins to show, and the woman thereafter goes through the usual course of a normal menstruation. Failure to menstruate, incident upon imperfect penetration of the injection, may be remedied by repetition of the procedure and positive introduction of the catheter up to the fundus. The entire process is of such innocuous nature that Oehlschlager often performs the injection at the office, and not only allows his patients to return home immediately, but even foregoes the usual recumbent rest in bed. He takes it for granted, of course, that the injection is made within the first few days, or possibly weeks, after menstruation has ceased.

The original feature of Oehlschlager's method resides in the use of the tincture of oidine, which he considers a most appropriate application, because, 1, by virtue of its ready diffusibility, it quickly destroys fœtal life; 2, its remarkable antiseptic efficiency precludes the occurrence of untoward symptoms; 3, its stimulating influence promotes uterine contractibility.—*Indian Medical Record, Dec. 4. 1901.*

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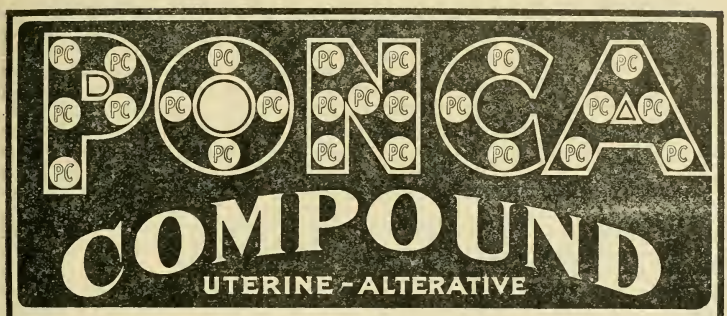
I have prescribed Sanmetto for the past six years, and find it quite agreeable to the patients, being very pleasant to take and of great utility in the treatment of a large number of cases frequently met with in general practice. It has given me uniformly good results in all stages of gonorrhea, cystitis, prostatitis, irritable bladder and incontinence of urine. I have also found it of great value in sexual neurasthenia, and much more satisfactory as an aphrodisiac than any drug that I have employed during my twenty-six years of practice.

Chicago, Ill. Wm. Parsons, M. D.

The death rate from pneumonia for the decade ending with 1900 is shown by the United States Census Bulletin of 1900 to have been greater than from any other one cause and 5 per cent. greater for the decade referred to than for the previous ten years. With such a large and increasing death rate every physician owes it to himself and to his patients to test Antiphlogistine which has a well-earned reputation for being the best possible local treatment for this and other inflammatory diseases. Many physicians report that a single dressing applied early, covering the entire thoracis walls and covered with a cotton jacket will often abort the disease.

It is our custom from time to time to notice through these columns new preparations, as they are introduced to the profession, that are known to have merit, and to be the product of reliable and thoroughly responsible houses. A preparation that is just now attracting a great deal of favorable comment from the profession is the Tilden Company's new antipyretic emulsion, Firolyptol with Kreosote.



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In a paper, "The Symptomatic Treatment of Tuberculosis," by Dr. Karl von Ruck, published in The Journal of Tuberculosis, Asheville, N. C., January, 1902, the author, under the captain "The Treatment of Pneumonia Complicating Phthisis," says:

"Until several years ago, I had much faith in the administration of one or two full doses of quinine (10 to 15 gr.) and while I still believe its use to be valuable, I have for the present abandoned it in favor of full doses of creosotal, which has appeared to have a decided influence in diminishing the ordinary duration and in bringing about resolution of the pneumatic process. My experience extends now upward of 20 cases, in none of which the pneumonic area progressed to caseation as is so apt to be the case in pneumonias complicating pulmonary tuberculosis, especially if the inflammatory area is already the seat of tubercle. This may be, of course, a fortunate coincidence, and I would still consider it so were it not for the favorable results reported by various clinical writers in other forms of pneumonic inflammation."

In the same paper, under the heading "The Treatment of Haemorrhage," Dr. von Ruck again recommends creosotal:

"Although the benefit from expectorants is not susceptible to proof, I can say that I have seen fewer pneumonias since using them after severe haemorrhages than I did before, and if the favorable reports and my own favorable experience of the action of Creosotal (Carbonate of Creosote) or Carbonate of Guaiacol in the treatment of pneumonia is further confirmed, we may hope that their administration for the first three or four days in the cases under consideration may still further reduce the frequency of this serious sequella to haemorrhage."

The substituting druggists have not all been caught or frightened out of their dishonest practice. The McArthur Hypophosphite Co., on recent investigation found five druggists in Waterbury and five in New Haven, Conn., who put out some of the vilest preparations imaginable for McArthur's Syrup Hypophos Lime and Soda, containing Strychnia, Potash, Manganese Iron and Citric Acid. Apparently anything that happened to be at hand was regardless of the fact that the prescriptions were plainly written Syrup Hypophos. Comp. (Lime and Soda) McArthur. In every case the price for the real article was charged. The only protection for the physician and for the patient is, for the physician to see that their patients take their prescriptions to some druggist whom they know as reliable and to prescribe an original bottle wherever advisable.

A very timely Treatise on Smallpox to sell at $3.00 is anounced for publication early in April by J. B. Lippincott Company. It is written by Dr. George Henry Fox, Professor of Dermatology in the College of Physicians & Surgeons, New York City, with the collaboration of Drs. S. Dana Hubbard, Sigmund Pollitzer, and John H. Huddleston, all of whom are officials of the Health Department of New York City and have had unusual opportunities for the study and treatment of this disease during the present epidemic

The work is to be in atlas form, similar to Fox's photographic atlas of skin diseases published by the same house. A strong feature of the work will be its illustrations, reproduced from recent photographs the major portion of which will be so colored as to give a very faithful representation of typical cases of variola in the successive stages of the disease, also unusual phases of variola, vaccinia, varicella, and diseases with which smallpox is liable to be confounded. These illustrations number thirty-seven and will be grouped into ten colored plates, 9½ x 10¼ inches, and six black and white photographic plates.

The names of Dr. Fox and his associates assure the excellence of the work, in which will be described the symptoms, course of the disease, characteristic points of diagnosis, and most approved methods of treatment.

Sanmetto In Genito-Urinary Diseases.

Dr. B. G. Inman, of Bradford, Ohio, writing, says: "I have used Sanmetto and find that it is all that one could desire in the treatment of urinary diseases. With an experience of thirty-eight years of practice I know of no medicine that is more direct in its action in all cases of senile prostatitis and other genito-urinary diseases. I regard Sanmetto as one of our best vitalizing tonics to the reproductive organs which gives it a wide range of usefulness in the treatment of many nervous troubles."

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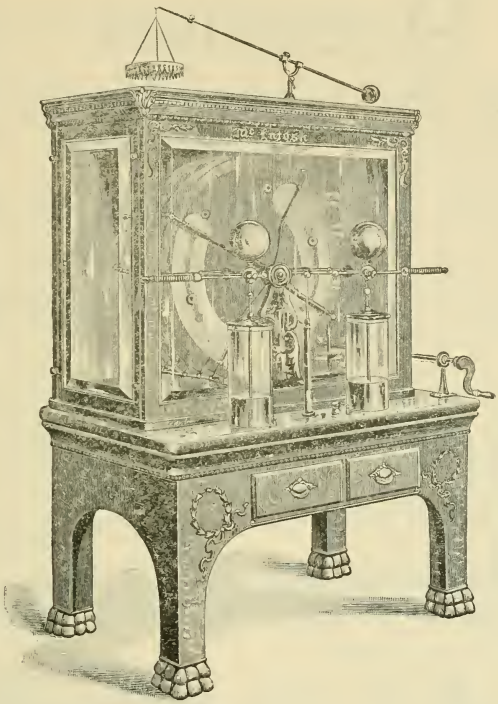

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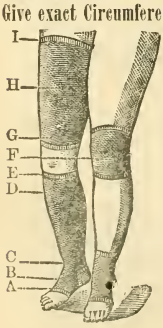

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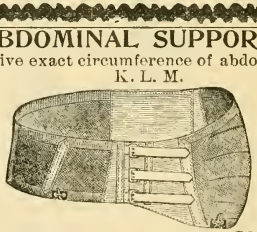

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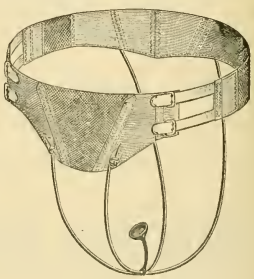

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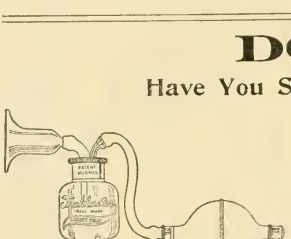

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VOL. XX. CHARLOTTE, N. C., APRIL, 1902. No. 4.

Surgery of the Billiary Passages.

By John B. Deaver, M.D., Philadelphia, Pa.

The study of the diseases of the biliary apparatus, and particularly that phase of the subject penetrating to cholelithiasis, is one of the most interesting in the vast domain of surgery. I know of no organ the diseases of which require so great a refinement in diagnosis and skillful technique in treatment as those of the gall bladder and ducts; and as gall-stones are so common, occurring in one out of every ten adults, according to some reliable observers, and as only about five per cent. of the individuals who have gall-stones present positive symptoms indicating the location and character of the disease process, we must accept the fact that, clinically at least, the other 95 per cent. are not pathological. In this large class of gall-stone bearing individuals, if there be symptoms, they are so mild and transitory that they are not to be accepted as indications of a severe diseased state of the biliary apparatus. Nevertheless these cases of latent cholelithiasis are never free from the danger of infectious inflammation.

Any individual thus afflicted is likely to be suddenly attacked by symptoms which may imperil his life as greatly and as suddenly as any disease which we are called upon to treat. Even should the sufferer be not put in peril of his life, he may at any time be called upon to suffer, perhaps, the most severe pains that mortal flesh is heir to. Again, in other cases, there is no acute outbreak, but the patient's health and strength are slowly sapped by a train of complications and sequelae, the true origin of which it is very difficult to determine; or, with alarming frequency, he ends his days a victim of cancer caused by the irritation of unsuspected gall-stones.

Since the symptoms caused by this trouble can be either severe or mild, it is very important that we use all the means at our command to determine the proper course to pursue in any given case. This, however, is very difficult, if not at times impossible, for even the most experienced often fail in diagnosing the exact variety of gall-stone trouble present, and indeed, often fail to discover whether gall-stones are present or not.

There are in the main only two conditions caused by gall-stones; these are mechanical obstruction and inflammatory; leaving out for the time cancer and the gastric sequelae produced by adhesions and ulceration which, however, may be considered as primarily inflammatory.

Of the two sets of symptoms the inflammatory are by far the most important, if indeed, inflammation is not the exciting factor in all cases.

As has been said before, the diagnosis of gall-stone disease is occasionally extremely difficult. the secondary inflammatory symptoms being responsible. In a case of pericholecystitis with adhesions to the pylorus or duodenum, the only symptoms present may be those of the consequent dilation of the stomach. If in these cases there is no history of attacks of gall-stone colic, the true diagnosis may be impossible. In other cases, adhesions to contiguous structures or secondary inflammation of the pancreas may give rise to symptoms which in no way simulate gall-stone disease. However, in all diseases of the upper portion of the abdomen the gall-bladder should be carefully considered as a factor in the disease and will very often prove to be at fault.

If the gall-bladder is enlarged and can be felt as a tumor, a mistake should seldom occur, as the rounded tender mass in the upper right quadrant of the abdomen, moving with each respiration, gives a comparatively easy clue to the nature of the trouble. Yet unfortunately, in most cases of gall-stone disease of any considerable duration, the gall-bladder is usually reduced in size rather than enlarged, owing to the contraction following the successive, attacks of inflammation.

Gall-stones without inflammation of their containing viscus, be this gall-bladder or duct, very exceptionally cause trouble. They are not given to free movement, and the theory that they wander into narrow parts of the biliary system and so cause obstruction has been almost entirely superseded by the views that the vis a tergo is supplied by an inflammation of their containing viscus which by inflammatory swelling causes the obstruction.

Gall-stone colic is probably not caused by the scraping of the stone along the duct, but by an inflammatory spasm of the gall-

bladder and ducts, too often without being successful in moving the stone.

A discussion of the theories of the causation of gall-stones does not come within the province of this article, nor does a discussion of the factors which would cause such severe symptoms in one case while others entirely escape.

In a large proportion of cases gall-stones remains entirely quiescent and innocuous, and are, therefore, not *per se* an indication for operative interference. If inflammatory processes have begun, however, the period for conservation has passed and the sooner operative procedures are instituted the better. Even after inflammatory changes have begun, if we were positive of the exact pathological conditions present, we might be justified in delay. For instance, if we could be sure that the inflammatory effort at expulsion had been successful and that all the stones had been discharged, then the disease has been cured by nature and the interference of the surgeon is unnecessary. Unfortunately, however, this is practically never the case, as commonly the larger stones are not moved at all or only from the gall-bladder to the ducts, where a recrudesence of the inflammation would cause much more serious trouble than the former attack.

The greatest obstacle to the advancement of gall-stone surgery is the false idea, so firmly rooted in the minds of too many of the profession and the laity, that there is no gall-stone disease without jaundice. This is not the fact by any means, for in perhaps the majority of cases jaundice is either lacking or very transitory.

As long as the gall-stones remain in the gall-bladder or cystic duct, there is no obstructive jaundice, although it is true that in these cases there is a functional jaundice sometimes present due to a profound disturbance of the liver cells, or to an intercurrent cholangitis due to retro-infection of the common duct from the intestinal tract.

Thus we see that many of the worst manifestations of gall-stone disease may develop without jaundice. The most aggrevated cases of gall-stone colic, empyema of the gall-bladder, perforative peritonitis, gangrene of the gall-bladder,all the pancreatic gastric and intestinal sequelae of peri-cholecystitis may develop without jaundice making its appearance. Yet, so very deeply rooted is this idea that very rarely is a sufferer from gall-stones willing to submit to operation without one or more attacks of jaundice.

Simple catarrhal inflammation of either or all of the different parts of this system is very common, but fortunately, unless accompanied by gall-stones, need cause very little apprehension. These cases, however, merit the closest scrutiny, for if gall-stones are present operation should not be deferred, as the risk of a more serious condition arising is so great that delay is always dangerous. Indeed, in inflammatory gall-stone disease, as in appendicitis, delay is always dangerous. And speaking of this question of early operation in cases of cholelithiasis and the same of appendicitis, I want to take this opportunity of forcibly expressing myself about the constant harping of a certain class of medical practitioners and medical editors about the radical or enthusiastic surgeon. There are thousands of living men and women to-day who have the enthusiastic, radical men of our profession to thank for their very lives; the men who, of a rich experience and with a confidence born of the courage of their convictions, have dared to cast aside tradition and the ultra conservatism and take up the axe of radicalism to hew a place for a rational surgical procedure in these cases of acute intra-abdominal diseases. Recently I have operated upon a man who had repeated attacks of gall-stone colic for twenty-five years—think of it, twenty-five years of gall-stone colic—and what was the result? Great omentum tied (plastered) to the entire upper surface of the right lobe of the liver, to the parietal peritoneum; gall-bladder adherent to the stomach, duodenum and omentum. One stone in the gall-bladder, three in the common duct, one in the right branch of the hepatic duct, and two in the left branch.

I agree with Kehr that in the condition of latency there is no indication for operation, and that such a case should be let alone. But on the other hand, I do not agree with him or with the writer of an editoral in the Philadelphia Medical Journal, July 27, 1901, on Kehr's article, that 50 per cent. of the active cases should be sent to Carlabad, or be treated symptomatically to the exclusion of the operation. Why, I would ask, should we expose the patient with gall-stones, who has had biliary colic, to future attacks with the positive knowledge that he will have constantly increasing inflammatory changes both within and about the gall-bladder and ducts. Who can tell how soon the stones will cause a pressure necrosis of the infected and swollen mucous membrane of the gall-bladder, empyema, or perforation? Who can tell when a stone may become impacted in the common duct with all the subsequent events following and probably costing the individual his or her life? Why should we forego a certainty for an uncertainty? Kehr himself says that they are more liable

to attacks after an occurrence of inflammatory trouble, and each attack predisposes to others, each one enhancing the operative difficulties and detracting thereby from a favorable prognosis. What stronger argument can be offered against delay? Is not operation at a time when the mortality is practically *nil* a truly conservative procedure? What is the basis for the argument of the pen and ink surgeon for his so-called conservatism, in view of the array of facts as demonstrated by the surgeon who spends his time at the operating table.

And this is especially important in patients who give a family history of malignancy, for to my mind the danger of a malignant degeneration is more liable to occur in patients who have such a history. The determination of the exact pathological lesion present is so difficult and the disease is capable of such sudden and rapid progression that procrastination is rarely advisable. In any case where jaundice exists it is extremely uncertain that operation can be deferred until jaundice has disappeared. The longer this symptom has persisted at the time of operation, the greater the mortality.

There is one form of catarrh of the gall-bladder without gall-stones that is not uncommon, occurring especially in the course of infectious fevers. The only symptoms are slight tenderness over the gall-bladder and an increase in its size, a little elevation of temperature, and, if the process is very severe, a leucocytosis. This form of cholecystitis is due to a bacterial invasion of the gall-bladder, without obstruction of any duct except the cystic. Usually this form of inflammation subsides satisfactorily, but should be watched very closely, as it must be remembered that it is an infectious process and it may at any moment give rise to the gravest symptom, either through an interstitial cholecystitis an possibly gangrene, or by sudden peritonitis due to transmigration of organisms. A simple catarrhal cholecystitis in a gall-bladder which is adherent may give rise to symptoms equal in severity to cholelithiasis.

I have known intense jaundice follow an attack of colic in which the trouble was due to angulation of the duct by tugging adhesions, and not due to gall-stone.

Acute phlegmonous cholecystitis, or the fulminating type of the disease, is a form which is met with frequent enough to make us stop and ponder before making our decision as to the proper course to pursue. It is, however, so rapidly fatal that we rarely have time to accomplish much, even by the earliest possible operative procedure. In view of this fact, we must consider that every case of gall-stone disease, even though reposing in that rather doubtful haven of latency, is a possible one for the development of this practically always fatal complication.

In active or inflammatory cholelithiasis there are two entirely different sets of symptoms according as the stones are situated in the gall-bladder and cystic duct, or in the hepatic or common duct. When they are located in the gall-bladder or cystic duct, they give rise to enlargement and colic of the gall-bladder, which in time becomes chronically thickened and often ulcerated and finally contracted, as has been said before. Such a gall-bladder is always infected, and frequently leads to empyema and even gangrene with a fatal peritonitis. Jaundice may be present, and may be slight or even severe. It is due to secondary inflammatory tumefaction of the common or hepatic duct from spread of the inflammation, or is the functional jaundice already referred to. When the stones are located in the common or hepatic duct, important functions of the liver are threatened and the symptoms are more serious Here the flow of bile is obstructed and jaundice is always present.

One of the most serious symptoms or complications of calculous obstruction of the common duct is an infectious cholangitis which produces a profound septic intoxication, or even abscess of the liver, and furnished the ultimate cause of death in the majority of fatal cases of gall-stone diseases.

It is characteristic of gall-stone obstructions that the jaundice is intermittent or remittent. This is not often due to passing on or moving back of the stones(ball-valve action of a floating stone, as described by Fenger), but to reduction of the inflammatory process of the mucous membrane of the ducts, and consequent relaxation of the spasm.

Enlargement of the lymphatic glands of the gastro-hepatic omentum, and the consequent pressure they exert upon the common duct, causes a form of jaundice that simulates that caused by malignant disease. This form of jaundice is apt to be slow in onset and chronic in nature due to the slowness of the process of enlargement of the lymph-glands.

A possibility which I have never seen suggests itself. If the enlarged lymphatic grands should break down and form as abscess, we would have an acute condition supervening upon a chronic one which would be possible to diagnose as an abcess, although its origin might be very obscure. Is not the lymphatic-gland enlargement due to the absorption of infection from the

infectious process going on in nearby organs?

In cholecystitis, if inflammatory symptoms exist, operation is always advisable, for it is to be remembered that when gall-stones are present the bile is usually infected, and that the patient is subjected to a slow destructive process in the gall-bladder or liver, and is always liable to a sudden serious exacerbation and infection of the liver. In jaundice cases, perhaps the greatest danger at the time of operation is a hemorrhagic diathesis caused by this condition.

I wish to emphasize the fact that the longer the jaundice has persisted, the greater the tendency to hemorrhage, and often when we are embarrassed by this complication, we have only our procrastination to blame. Several methods of treatment have been suggested for the control of this condition, namely, calcium chloride, gelatin, suprarenal extracts and many others. I have tried all of these methods and have finally abandoned them, as they seem to me to be entirely inert and only add to the discomfort to the patient. In cases in which I meet with troublesome hemorrhage, I depend upon packing with gauze and full doses of opium, and in serious cases intravenous saline transfusion.

In any given case, before opening the abdomen it is almost impossible to decide what condition is present, and, therefore, what particular operation may be necessary. In a general way our objects is to remove all stones without permanent injury to the ducts, and to immediately establish free drainage for the outlet of the bile. How this can best be done must be decided for each case individually, and success depends upon the experience and ingenuity of the surgeon to a very great extent. To perform operations of the magnitude of those of the biliary apparatus, it is wise to have at hand all the accessories that surgical science provides. It seems wise, therefore, to take such cases to a well organized hospital rather than to attempt them in private houses where, as a rule, the light, attendance, etc., are necessarily limited.

The ideal operation is to remove all stones or other obstructions and close the gall-bladder without drainage. This, however, can rarely be done and only in the most recent cases. In case the least doubt exists of the propriety of this operation, it is better to drain the gall-bladder. The greatest trouble with this procedure is the persistency of a biliary fistula. Lately I have been draining the gall-bladder into the duodenum by means of a cholecystenterostomy, and my results have been so gratifying that I have practically abandoned external drainage for this procedure in all cases in which it is possible. I hesitate to recommend this treatment as a routine procedure, for it is one which requires judgement and great dexterity in its performance, and, therefore, external drainage is the preferable procedure for the young surgeon who has not had the opportunity for extensive experience in this class of work. The great advantage of drainage by means of a cholecystenterostomy is its permanence, since in the event of a recrudescence of the inflammatory cholecystitis, or a continuance of the original attack, it furnishes two avenues of exit for the contents of the gall-bladder, both by the cystic duct and fistulous tract into the duodenum.

In case it is necessary to open any or all of the ducts to remove stones that cannot be coaxed into either the duodenum or gall-bladder, or crushed by very careful pressure of the fingers the ducts can either be immediately repaired by suture or preferably drained.

In cases of cholangitis, even if there be no stones in the ducts, it is much better to open the common duct and establish free hepatic drainage.

In cases in which the gall-bladder is gangrenous or so inflamed that gangrene is feared, excision is often advisable, and this adds very little to the gravity of the operation. If there be a reasonable doubt as to the condition of the gall-bladder, it is wiser to remove it. In fact, it may be wise to remove every infected gall-bladder, for like an inflamed appendix it is a constant source of danger owing to the likelihood of constantly recurring attacks of inflammation and the reformation of gall-stones. If in cases in which it is thought best to excise the gall-bladder the latter is very firmly adherent to the liver, two courses are open: The gall-bladder can be either stripped off the liver and the hemorrhage controlled by packing or the cautery, or the unattached portion may be cut away, leaving the attached portion only stripped off the mucous membrane.

In gall-bladder surgery we must always consider the bile as infected, and the utmost care must be used to prevent its soiling the general abdominal cavity. This is best done by completely surrounding the field of operation by a thick layer of sterile gauze, particular attention being paid to the fossa directly posterior to the gall-bladder. In all cases that are not closed up, it is advisable to surround the gall-bladder with a layer of gauze which serves the two-fold purpose of checking hemorrhage and protecting the other viscera from contamination.

The majority of cases of infective chole-

lithiasis is materially affected by the condition of the kidneys. There are three theories which may be offered in explanation of the part nephritis plays in this disease: 1st, pre-existing nephritis, either, interstitial or parenchymatous; 2nd, existing nephritis, the result of the extra strain upon the kidneys in eliminating septic bile and other resulting excretory products due to the altered metabolism of the liver and intestinal tract; and 3rd, anesthetics and their effect upon the kidney function

In my experienee, the lighting up of a pre-existing nephritis or the increased severity of an already active nephritis is not so much due to the effect of an anesthetic as it is due to the disease of the biliary apparatus, and the consequent altered metabolism and altered needs of excretion upon the part of an unsound kidney structure. When the kidney is healthy at the time of the administration of an anesthetic, the resulting nephritis, if it does occur, is a temporary affair and plays little or no part in the mortality of cholelithiasis. In other words in those patients who die of uremia after operation for cholelithiasis, the nephritis either pre-existed or was lighted up as a result of the disease and not as a result of operation or anesthesia.

The other causes of death in cholelithiasis are hemorrhage, cholemia, shock, which is the result of hemorrhage and prolonged operation, and rarely peritonitis.

I believe that by operating at the time of election, that is, before repeated attacks of inflammation have caused serious alteration of structure, both within and about the gall-bladder and ducts, and before the blood is surcharged with those chemical materials which result from altered hepatic and nephritic function, and which favor hemorrhage, cholemia, uremia and sepsis, that the mortality can be reduced to a percentage which will compare with intra-abdominal operation. I would suggest the following as a good working rule in inflam matory or active cholelithiasis: Operate in the disease rather than early in an attack; operate early in an attack rather than not operate at all.

Lobar Pneumonia with Report of a Case.

By L. B. Cook, M.D., Stanford, Ky.

Frankel's pneumococcus is the etiological factor in producing this disease. There are other bacteria that may be associated with it and produce a broncho-pneumonia, but the diplococcus is the agent that gives the clinical picture, viz.: sudden onset, high fever, rusty sputum, stormy course, sudden differescence attended by deposition of fibrine in alveoli, and consolidation of lung. Friedlander's bacillus as a causative agent is still open for discussion.

The other bacteria that often complicate pneumonia may be mentioned—first, the streptococcus alone, or associated with the staphlococcus. The typhoid, the influenza, the colon, and the tubercle bacilli may cause a broncho-pneumonia or a secondary pneumonia.

The upper air passages in health are often the habitat of one or more varieties of bacteria, and it is only necessary for some contributing agent, as cold, traumatism, or inhalation of ether, to carry these vegetable parasites into the lungs from which point they infect the whole system.

The bronchi- and pulmonary tissue do not in health contain bacteria, and it is only by an invasion of these germs that a pneumonia is possible.

The course of pneumonia is greatly influenced by the association of other bacteria, and their union will produce mixed forms of pneumonia or mixed infection; however, when the characteristic rusty sputum is present, we are sure the pneumococcus is the primary agent, and when the expectoration is micro-purulent we shall expect a streptococcus or staphlococcus infection or complication.

The crisis is more easily reached under the influence of diplococcus than the steplococcus.

It is generally conceded that the crisis comes with the establishment of immunity, and in the pneumococcus infection it is generally sudden, while in other infections immunity is more often reached by lysis. There are several things that may prevent immunization aside from the virulence of the bacteria, among which may be mentioned, first, the physical condition of the patient himself. The alcoholic, the aged, and tubercular patients often succumb to an infection that would otherwise run a mild course in one whose arterial tubing is strong and elastic. The etiology of the crisis of pneumonia has been a mooted question. Many theories have been advanced in this, and in other infections, bearing upon this question of immunity. Among the oldest, and at one time the most generally accepted, are the retention and exhaustion theories; in the former the disease leaves behind something that prevents a second attack, and in the latter there is consumed a substance necessary for the development of an infection; the chain cellular theory has its advocates. Metschnekoff's phagocytic theory is the most widely accepted one. He claims that the leucocytes take up the micro-organisms, prevent the production of toxin, and finally destroy them. This is

not altogether true in pneumonia, as there are other things that aid in establishing immunity.

The pneumococcus will die in three to seven days in cultures, in the lungs it lives and retains its virulence during the whole course of the attack, and long into convalescence; there must, therefore, be something else in establishing the crisis than the death of the pneumococcus. The body fluids, especially the blood serum which contains the alexin, the secretory product of the leucocyte, and the anti-pneumotoxin produced during the development of the disease to neutralize the pneumotoxin. The alexin, the blood serum, and the leucocyte manifest their action on the bacteria themselves, while the anti-pneumotoxin acts upon the toxin. The toxin and the antipneumotoxin are produced simultaneously; one the cause, the other the effect, and when the antipneumotoxin gains preeminence. a favorable crisis terminates the disease, and immunity is established.

I have as briefly as possible stated the etiology of pneumonia and also reviewed the theories of immunity and crisis with out entering into all the phases of pneumonia.

I will report a case bearing directly upon the question of immunity.

W. H., age 36, a farmer, single, of healthy family and personal history, after complaining for a few days of a cold was taken suddenly ill Monday. Jan. 6. When I saw him the following day he complained of headache and pain in bowels, temperature 104 F. pulse 120, respirations 20. He did not mention any pain in side, but had expectorated and vomited a muco-sanguinous substance. He had a slight suppressed cough which might have been overlooked had not the bloody expectorations called my attention to the lungs. The following day I found him with the general and physical signs of pneumonia well developed The temperature and circulation under the treatment of calomel, veratrum viride, and spirits mendererus were reduced. This treatment in the later part of the disease was changed for carbonate of ammonia and strychnine. The case ran a regular course and the crisis came in one week. At least the temperature, pulse, and respiration dropped to normal, and he had the appearance of comfort in every lineament of his face. Before the crisis and during the whole attack he had been a little delirious at times, though perhaps not unusually so for an extensive pneumonia. The only irregularity in the course of the disease, so ar, should be mentioned the unusual wakeulness; he could not sleep. Medicine failed to bring rest. Vigil kept watch through the nights. When the crisis came, his temperature fell to normal, light perspiration pervaded the entire body and he gave the appearance of one that would make a complete and rapid recovery; however, the delirium which had previously been at intervals soon became continuous and active. He required the constant attention of two attendants to keep him in bed.

He was in constant motion, striking and kicking imaginary objects, hollowing, and building fences. Carphologia well marked, facial expression changed constantly in the most grotesque contortions; in fact, the entire system seemed to be in constant motion.

He passed involuntarily, while awake, his urine in bed.

I was called during the night and found the following perscription which I had prescribed for his delirium, had failed to quiet him.

℞ Apromorphine Gr. 1-30.
Hyoscin Hydrobromate, Gr. 1-150.

Mix. One dose,alternating with bromidia one drachm every three hours. I gave then a hypodermic of apomorphine gr. 1-30 and morphine sul. gr. 1-4. thirty minutes later apomorphia, and bromide. These failed to have any effect, and I gave him apomorphine gr.1-20 making in all gr. 1-7.

He was still acutely delirious and I believing his delirium due to toxemia,decided to bring on a free diaphoresis owing to the weak heart action. I was cautious not to use pilocarpin for fear of cardiac paralysis or pulmonary edema, but surrounded his body with hot bricks, moistened with water and wrapped in cloths, which brought about a general perspiration and for awhile he was apparently better. This, however, did not last long and I gave him normal salt solution, twenty-four ounces under the skin, and left him for the day. He did not notice the injection, which was all introduced in one place in the subscapular region.

For a short while after the injection, he was still delirious and then fell asleep for three hours, the best rest during the entire sickness.

The delirium soon increased again and he was given bromidia internally and apomorphine and hyoscin hyperdermically as the case required.

Nature made an effort to relieve the toxemia by a few liquid stools which was encouraged by calomel. Free purgation soon relieved him and his delirium which for four days had been active and almost continuous, left him suddenly and he slept for six hours.

I shall mention there was no endocardiac murmur, and a chemical and microscopical examination of the urine gave negative results with the exception of an increase of urates.

This was evidently a toxemia continuing for four days after the crisis, stimulating meningitis or pneumococcus septicemia and relieved by free purgation. The salt solution aided in the elimination of the poison, but sleep came only by calomel purgations.

I have reported this case for the unusual occurrence of such active delirium following the crisis—the first one I have ever seen during my entire practice for twenty-two years.

501 Main St.

Treatment of Gonorrhea.

By G. A. Davis, M.D., Surgeon to B. and O. R. R., Sec'y and Treas. B. and O. Association R. R. Surgeons, Member of the A. M. A., Sec'y. Jefferson Co., Medical Society, etc.

All physicians have cases of gonorrhea to treat. The young man generally comes to him in a shy, sneaking manner and says Doctor I was at work a few days ago and I think that I must have strained myself. I am sure nothing else is wrong because I always behave myself. I just tell those young fellows to let me look at the strain and to milk him down. We all know how it looks so no need to describe the appearances of a case of clapp. I always feel sorry for a boy with his first case because he always gets it from a lady and generally one whom he thinks would not let any man touch her much less treat her so. The majority of young men have to get their experience by traveling the same road and to get disappointed in the purity of all women and it is well so or some of our best young men would get roped in by a shameless woman. After talking quietly with my young man and letting him know that I can keep secrets, I tell him not to worry and let every one know his trouble but to look the world square in the face and feel that he is not the first one to get caught and be disappointed in his first love. I then proceed to tell him what to do, first not to handle his penis and then rub his eyes before washing his hands, giving him to understand the consequence if he does and also advise him not to try to strain himself again until he is well of this one, he generally swears against all women, but like the woman in childbirth soon forgets after being healed up. I then direct him to keep his parts as clean as possibly by washing in warm water 3 or more times a day and burning up all old cloths used and apply fresh clean ones. I then give him a 10% sol. of Protargol, 2 ozs. and a solution of Sulpho carbolate of Zinc 2 grains to ounce and a ½ oz. syringe and tell him to first urinate then inject a syringe full of warm water and let it pass away then inject one syringe full of the sol. of Protargol hold the mouth of the urethra for some five minutes so as to retain it then let same pass off wrap up his strain and go to bed, to repeat this every night, then in the morning first urinate then syringe again with warm water and use the sol. of zinc sulpho carbolate and repeat 3 or 4 times during the day till night and then go through the same process, as the night before. I advise him to let alcoholic stimulants alone but to keep to his usual diet but not to season his food too high with pepper, this ℞ generally if followed out get the young man well in 3 to 4 days and he is happy again. I never tell on him and he will willingly pay his fee. I have several times used the bougies containing Protargol and found them to act well if used just upon retiring at night, I trust this may be of interest to some young doctor, because if any thing in this world there is to worry a young M.D., is to have his first few cases of this trouble to not do well and get well quick. I have tried every mode and manner of treatment but find this the best and most satisfactory. Of course we all come across a case occasionally that does not get well soon but if seen into the doctor is not to blame, the patient does not follow out the treatment and advice and in such cases, the only way the doctor can do is to do all the work himself making the patient visit his office 2 if not 3 times a day, and if he persists in not obeying you to tell him that you will not only refuse to further attend him but will at the same time let every one know why he did not get well, this will usually bring him to term and you will soon have him well, but possibly with a stricture—the treatment of which I will not name in this paper.

Summit Point, W. Va.

Case of Dystosia.

By Jno. Randolph, M.A., M.D., Surgeon to Buckingham State Quarries, Arvonia, Va.

February 5th, 1902, I received a call at two o'clock in the morning to see Mrs. Daniel Jones, who was in labor, a primipara, about twenty-five years old. On digital examination I found her os dilated

about half an inch. Presentation, occipito-anterior. Case progressed as usual, with slight advancement of fœtus. About 11 a. m., the os had dilated to about an inch, pains irregular, reddish, glairy discharge appearing. Her bowels not having moved for several days, a large enema was given, which caused a copious evacuation.

At two o'clock, p. m., found on my third digital examination that the head was very large, parietal bones overlapping, waters bagging slowly, and the fœtus has not advanced any.

Gave a teaspoonful of chloral and bromide mixture (15 grs. of each), and kept her slightly under the influence of chloroform, as her pains were getting very severe.

Repeated the dose of chloral and bromide mixture at four o'clock, and from the large size of the head, I thought that it was an instrumental case.

At five o'clock I sent for my instruments, but as the os was fully dilated, the perineum yielding, and soft parts well lubricated, and the bag of waters had just ruptured, I gave her twenty drops of fluid extract of ergot.

It strengthened her pains, made them longer, and at six o'clock I gave her 3i of fluid extract ergot, and in about forty minutes, thereafter, the child was born, with a very large hydrocephalic head, and at the junction of the dorsal and lumbar vertebræ a large *spina bifida*. The umbilical cord was very short.

Although I practiced Crede's method, I had to insert my hand into the womb before I could deliver the placenta. She had hour-glass contraction, and the placenta was not removed until one and a half hours after the birth of the child, and that by hard work I would have delivered her with forceps had they been brought in time. In the majority of these cases, I generally perform craniotomy. Dr. Keel wrote me a note requesting to see the child, and he considered the head the largest of any new born infant that he had ever seen. The mother had slight fever for a few days, but is now doing well, and the child is still living.

When Should We Use Forceps in Labor Cases.*

By. Dr. L. G. Frazier, Port Norfolk, Va.

When I was asked to read a paper on some subject bearing on, Obstetrics before this society, I was some time in selecting one. There is not a more important subject to-day to the general practitioner than this one of which I shall briefly speak. That the prolongation of labor in itself is a serious thing, is becoming daily to be a more recognized fact than ever before, no obstetrician can deny.

This is proven when we contrast the statistical returns of the lying in hospitals of to-day, with those of twenty or thirty years ago. We find that less than thirty years ago, instrumental delivery was not resorted to more than once in 310 labors, in lying in hospitals. To-day we find most of our lying in hospitals use them once in every ten or twelve cases. There are a number of causes that may retard the progress of labor.

Irregular action of the uterus, undue rigidity of the parturient passages, tumors and bony deformities. Whatever the obstruction may be, there are symptoms developed, which are jeopardizing both to the mother and child.

In many cases in which the action of the uterus is irregular and slow it may be some time before serious symptoms develop. On the other hand, when the uterus is rapid in its action, and exhausting itself in a vain effort to overcome some obstacle, serious symptoms may be developed rapidly.

Prolongation of labor in the first stage, is of comparatively little consequence to either the mother or child. It is delay in the second stage that brings about grave symptoms. We occasionally have a cessation of pains, after the head has passed through the os uteri; only to be renewed again after a prolonged rest. Such irregularities should be carefully watched. In most cases, just at this stage, any marked alteration in the force and frequency of the pains indicate a more serious affair. The tongue is very soon found to be coated, the temperature begins to rise, the skin is dry and hot, and in many cases there is a great deal of vomiting, and the patient begins to be restless and irritable. Should the patient still remain undelivered, all of the above symptoms become aggravated, and very soon the patient is in a state of unconsciouness. Such train of symptoms should never occur in the hands of a skilled obstetrician, and it is because the more scientific process of delivery has taught us that under such circumstances prevention is better than cure, that earlier interference has become so much more the rule. I do not believe in allowing a patient to drag along through so many weary hours of suffering, at the expense to herself and great risk to the child. It is just and proper to give nature a chance, but I do not think it justice to the patient to allow her to become entirely exhausted and worn out before we resort to instrumental interference.

*Read before the State Medical Association Feb. 26, 1902.

Braxton Hicks taught that "When the pains in the second stage of labor had fallen off, and had become few and feeble, or had entirely ceased, and the uterus was in a stage of tonic contraction, these were the chief causes of the more marked symptoms of powerless labor." If in a case of this kind we examine the womb by palpation, it will be found to be firmly contracted between the pains, under such circumstances instrumental interference is of the utmost importance. There are other maladies which greatly influence the progress of labor. The general constitutional condition of the patient may have a marked influence over the force and frequency of the pains, it is stated that long residence in hot climates causes uterine inertia. A patient suffering from bronchitis or lung trouble is unable to bear down as she should to effect a prompt delivery.

The same is true when a patient is suffering from a bowel trouble. In those cases labor is carried on almost entirely by uterine contraction alone.

In such cases delivery is greatly delayed. In the first stage of labor when the pains are irregular and the uterus slow in action, I often give a rest and it is then I give some opiate; usually Battley's Solution, given in the form of an anæma, I find to be quite sufficient; after this has been given and the patient gets some three or four hours rest and sleep, she awakes with renewed strength and energy to complete the work she has before her. There are a number of remedies laid down in our text-books as oxytocics, and in those long lingering cases which all practitioners are liable to encounter at times, we are inclined to give some oxytocic to stimulate the action of the uterus, and bring the pains on at shorter intervals; in my experience I have found nothing better than quinine given in 15 or 20 grain doses. I usually give it in a cup of hot coffee, the coffee seems to promote and hasten the action of quinine. When it is given in normal cases, when the pains are slow and lingering, it acts promptly and effectually. Quinine in itself has no power to excite uterine contraction, but it simply acts as a general stimulant and promoter of the vital energy and functional activity. This drug in those cases deserves a great deal more attention than it generally receives. The application of manual pressure to the uterus through the abdominal walls at short intervals, resembling the natural process is of very great benefit in lingering cases and bids fair to supersede the various drugs used as uterine stimulants in lingering cases of labor; this process of stimulating the womb to action has been much used of late years in Germany, and is now being used a great deal in this country. There are a good many advantages in uterine pressure, the amount and frequency is completely under the control of the obstetrician, it also has the advantage of simulating natural labor, it can be done with perfect safety to both the mother and child. We must of course be careful and not be rough in our manner of pressure. Pressure is of especial advantage when we wish to intensify feeble pains. When all methods of stimulating the uterus to action fails, and most especially if there are other hinderances to natural labor, then the next mode of procedure is instrumental delivery. The experience of the best teachers is, that when we are convinced, that natural efforts toward delivery are beginning to fail, then we should without hesitancy use the forceps, and it is certainly far better to interfere soon rather than late. The important debate on use of forceps, a few years ago, at the obstetrical society of London, verifies these statements. When we find our patient gradually weakening and the pains lessening in force, and if we are quite sure she cannot be delivered by natural means, it is our honor bound duty to give her the benefit of the doubt, and deliver her instrumentally as quickly as possible.

The use of the instruments when the head is high in the pelvis or in case of a deformed pelvis, or before the os uteri is completely dilated is a tedious and sometimes a serious matter. The chief question in such cases is, if there be sufficient risk to the mother to counterbalance the delay.

It is well known to all obstetricians, that the forceps in the hands of an unskilled operator, who has not studied the mode of operating, and the proper use of the instruments, may do serious damage, and it would be far better if such an one would never attempt to use the instruments.

An obstetritcian should make himself thoroughly acquainted with the proper use of the instrument, and acquire that skill which the practise and study of the mechanism of labor alone can give. The application and use of the forceps in the hands of a skilled practitioner, is simple and easy, with but little danger to the mother and perhaps less to the child.

It is impossible to lay down any regular rule, as to when the forceps should be used. Every practitioner must be his own judge, and each case must be treated on its own merits after a careful estimate of the pains.

Poisonous Stockings.

In the manufacture of silk on the Continent sufficient supervision is not exercised to prevent serious and dangerous contami-

nation of the fabric. The grave risk incurred by this want of inspection are especially noticable in the lighter shades of silk, particularly yellow silks and care should be taken to avoid wearing such a material next to the skin, because it is sometimes impregnated to a very considerable extent by tin chloride, in order to increase the weight and give the article a fictitious appearance of high class quality; technically speaking, the proceeding imparts more "body" to the fabric. The medical interest in the matter arises from the difficulty of diagnosing the condition caused by the absorption of the tin chloride. The Wiener Klin. Rundschau has done well in publishing the details of a case of the kind, and we consider that the subject should be pressed home to the notice of the responsible authoritites. The symptoms in this instance, in a young lady who had been wearing yellow silk stockings, began with a sudden failure of motive power and of sensibility in her limbs. This disability was recovered from, to a certain extent, but when the patient began to get about again and resumed the wearing of the yellow silk stockings alarming symptoms of an ataxic character set in, and an examination of the urine revealed albumoses, serum albumin, and globulin. The urine was also observed to give the reaction for tin, and on examination the yellow silk stockings were found to be impregnated with tin chloride. It was futher found that the patient exhibited considerable destruction of the corpuscular elements. Recovery in this case was slow, and for months the urine continued to give the reaction of tin. A considerable amount of time and attention has been bestowed on the adulteration of certain goods with borax and boracic acid; it would be advisable if the more dangerous trade customs were also investigated and regulated.—*Medical Press and Circular.*

Surgical Treatment of Traumatic Facial Paralysis.

Breavoine (Travaux de Neurologic Chirurgicale, June, 1901) discusses at length the method first proposed by Faure and Furet of treating facial paralysis of traumatic origin by establishing an anastomosis between the involved facial nerve and the spinal accessory. In this operation both nerves are divided, the facial near its exit from the stylomastoid foramen, and the portion of the spinal accessory which supplies the trapezius muscles just before it enters the sterno mastoid, and the central end of the latter is sutured to the peripheral end of the former. Reference is made to records of experimental work which show that in dogs spino-facial anastomosis has invariably resulted in cure of facial paralysis. It is also stated that of two cases in which the operation has been performed, it was very successful in one, and in the other, submitted to surgical treatment at too late a period, the occurrence of nerve regeneration was established beyond doubt. The author concludes his interesting contribution with the following summary: Facial paralysis caused by division or destruction of the nerve in its intrapetrosal portion may be cured by a properly-effected spino-facial anastomosis. Experiments on animals have proved with certainty the facts of nerve regeneration and of both physiological and histological restoration. The application of the operation to man is indicated in cases in which the facial nerve has been accidentally cut or destroyed in the course of surgical intervention for middle-ear disease, or has been similarly injured in gunshot wounds and fracture of the petrosal. The operation, however, should not be attempted unless it is certain that the facial paralysis is beyond all other methods of cure. It is indicated also in cases of facial spasm, a successful instance of the benefits to be derived from such treatment having been reported by Kennedy. Spino-facial anastomosis, though a difficult and delicate operation, is free from risk. Wounding of the internal juglar vein may be prevented by proper care, and the consequent paralysis of the trapezius is usually restricted to some few clavicular fibres of this muscle.—*British Medical Journal.*

Freezing for Typhoid.

The American correspondent of a London daily paper lately announced the fact that a new cure for typhoid and all other fevers had been discovered, and experimented with successfully. The cure consists in placing the patient in a specially constructed refrigerator and "freezing" the fever out. The discoverer of the new method is said to be a medical man in New York. The patient is deposited in a long rubber bag, with "auxiliary ice pockets," wrapped up in a wet sheet and blanket, In addition to this ice is closely packed about him,and he is kept in the refrigerator until nearly frozen. It is declared that this treatment results in an immediate drop in the patient's temperature of about 5 deg., and that it keeps dropping until the normal is reached. We should be inclined to suspect that the decrease in temperature would be much more marked than the correspondent or the inventor believes. Undoubtedly the fever would be "frozen out," and most probably the patient also.—*Press and Circular.*

Charlotte Medical Journal.

EDWARD C. REGISTER, M. D., Editor.

No. 36 South Tryon Street, - - - -

- - - - - - - - - - Charlotte, N. C.

SUBSCRIPTION. $2.50 PER YEAR.

SOME VITAL POINTS.

There is a demand in this country for the broad minded and liberal physician who can accept *truth* no matter from what source it is derived. Many, no doubt, can remember when the members of the regular school refused to use certain drug for the reason that the other schools were so wrapped up in their use. Now this spirit cannot be tolerated if we wish to progress. It should be our aim to be guided by the rules of reason and common sense.

The history of medicine proclaims from her pages that the truth has lived, and will live, no matter if Hypatia was dragged through the streets of Alexandria by ignorant monks because she wished to teach what she understood to be science, or because John Hunter, who wished to tell the truth, was snubbed by his medical brethren. In this country, at the present day, that same spirit of crucifixion seems to exist against some of the evils in our *ranks*. There is a germ of truth in every man's philosophy, and for the sake of future enlightenment do not let your revengeful spirit predominate, but consider all theories as they are advanced, study the history of medicine—look at the past mistakes and guard against the future.

The great dispute seems to exist over the most vital part of medicine, namely: Materia Medica and Therapeutics. I am positive that much of this disagreement comes from the fact that physicians, and even authorities, if you please, do not understand that there is a difference existing between the diagnosis that leads to the classification of disease (nosology) and the diagnosis that leads us to the prescribing of the proper remedy or remedies. There can be no two exact cases of typhoid fever, pneumonia, or other nosological classification, so if we stop to think we know it is useless to attempt to form a treatment based upon such a classification. It is very good to have some system by which we can express ourselves in a few *words*, but when we treat names in the place of pathological conditions, we are making a mistake which leads to the proprietary medicine evil and places the practice of medicine on the basis of nothing more nor less than a *trade*. We are more than nostrum venders, we are supposed to be scientific physicians who love the profession. If so, is it not proper for us to look into our mode of *practice* and protect the *foundation* of the science—therapeutics—by instead of prescribing set formulas for entities that do not exist, but instead, search for the pathological lesions, give the proper acting *remedy*, and feel that we are doing the best we can according to the light we have in this twentieth century.

INDISCRIMINATE MARRIAGE WITH DEGENERACY AND CRIME.

Year after year it becomes more perceptible regarding the rapidly increase of the dependent and degenerate class; each year crowds the charitable institutions more and more. Increased appropriations for maintenance and special appropriations for new or additional buildings for housing this dependent class are needed. Where will this enormous annual increase of degeneration carry us. It promises to continue with added numbers until the burden grows beyond endurance. With such probabilities staring in the face of the Nation and the world, it becomes a problem that must interest the masses and the legislative powers in the future of our country and the civilized world; otherwise the burden will grow to such proportions, sufficient to prostrate those who should give the support.

Some means or measures must be inaugurated to suppress this rapid increase of this class of beings; and at the same time plans arranged to train and develop any latent talent or power in those who we have with us and to follow, that they may be brought up to that degree of physical, mental and moral condition, which it is possible to effect in them, to make of them as useful citizens as they are capable of becoming. Various measures have been suggested in the past; among them is that of unsexing both male and female degenerate, to prevent their begetting offspring. But owing to the formidableness of such a method it becomes impracticable being impossible to carry into effect or to execute. There is one plan that promises a fair degree of good results in this problem; that of the regulation of marriage and providing for an examination of each individual, before the contract is completed so that only those fully constituted and fitted to beget normally constituted offspring may be allowed to enter the bonds of matrimony. The degenerate class in prosecuting the married relations, do not have that consideration of judgment or control of their animal appetite and the result is in all cases, large families of degenerate

children, not only from the inherited parental deviation, but also by the added weakness as a result of a too frequent child bearing by the mother, disqualifying her for endowing the offspring, with even her more normal condition.

That such regulations of marrage should be inagurated and made effectual has been urged by the medical profession and medical press for some years. It is a most worthy cause; let the effort be continued. Bateson[1] says: "That the government has the right and power to provide against the propagation of criminals and disease, is conceded. And the fact that such provisions have not been made in the past does not constitute any sufficient reason why it should not be enacted in the future and there will be such laws, just as soon as public opinion demands it."

In every state there should be an organization of the license issuing power that each individual to the marriage contract must be examined, as to their fitness to enter upon the marriage relations; and no permit or license to be granted to such applicants,unless assurance is shown by the physical, mental and moral examination of their fitness, except where the female is beyond the age of forty-five years in which case the probabilities of bringing into the world a degenerate human being is hardly probable.

Several states have enacted laws requiring such examinations and the result will be watched with interest. Such a law in force in isolated states can have but a minimum of success, since parties can evade the law by going into adjoining states to be married. It is to be hoped that the time is very near when our Nation will have a cabinet officer on State Medicine; when such is consummated, then will come the opportunity in which a law may be shaped for benefit and good of all of the states in unison. It is the states interest and her duty to protect its citizens in all matters pertaining to their welfare; it is equally the states interest and duty to protect the interest of the unborn, as well as those now in existence; especially is it important to prevent the bringing into life of such beings whose very existence will be a burden to itself as well as to the community.

There is much to be evolved and thought out, to make such a statute of practical utility and effective; and to prevent evils which might be a result. Once such measures are enacted in all of the states and carried out, great good and marked improvement will result to the human family, this must be an ultimate course for an enlightened nation which expects to go forward with success. The human family must be more nearly constituted by individuals of the fitted type to enable it to continue in a prosperous and successful career.

At the same time such examinations will prevent the opportunity to detect other physical conditions, debarring the parties from marriage; such as tuberculosis, epilepsy, cancer, gonorrhea and syphilis; these last two are diseases that should receive the utmost scrutiny and constriction; it is estimated that they cause 50% of all sterility and 41% of all pelvic inflammation.[2]

This whole subject is a matter for the medical press to create a sentiment in favor of and cause the sentiment to grow until the idea becomes *a fact* upon the statue books of the states of our union.

1. Medical Examination as a Prerequisite to Marriage. J. C. Bateson, M.D., Med. Jour., Feb. 1902, p. 250.

THE BULLETIN OF THE NORTH CAROLINA BOARD OF HEALTH FOR FEBRUARY.

The contents of this number is of much interest to every physician or sanitarian. The first article in the number contain suggestions and instructions by which physicians of North Carolina may secure a biological examination of specimens of any infectious or contagious disease. This matter should interest all physicians in the State and each one having any infectious disease or questionable pathological condition should avail themselves of the opportunity.

An article entitled "A Century of Vaccination," by Floyd M. Crandall. of New York, is a most complete and readable article and should be read by every physician; even editors of lay journals would do well to study this article. Other matters of interest to physicians and statisticians make this number of the Bulletin quite a worthy one. It is hoped that a copy of the Bulletin may find its way to the reading table of all physicians and even those of the lay.

THE KELLOGG SANITARIUM BURNED.

The Kellogg or Seven-Day Adventist Sanitarium of Battle Creek, Mich., was burned to the ground on February 18th. The most remarkable, and to be especially commended, fact is, that of the four hundred inmates of the institution there was but one probable death, and one leg broken by a fall from a fire escape. This certainly

2. Editorial American Medicine, Jan. 18th 1902, p. 89.

speaks well for the management and equipment of the institution. The fire department of the institution certainly managed the affairs well during the fire to attain such a record at this time when the recent hotel casualties have been so serious. The loss by the fire to the institution alone is estimated at $300,000. There is no estimate of the loss by patients in clothing and valuables, which might swell the loss to quite a sum. The institution will be rebuilt and furnished at the earliest date.

FRACTURE IN THE UPPER THIRD OF THE FEMUR; ITS TREATMENT.

In the fracture of the upper third of the shaft of the femur the most important problem in devising treatment for the condition is to prevent as fully as possible angular shape in the union of the two portions of the bone. The tendency of the upper fragment is to tilt forward and outward, due to the action of the muscles in relation with this part of the bone. The lower fragment is likewise drawn forward, thus producing an angle at the junction of the two portions with shortening of the limb when repair takes place. The shortening in the limb which usually occur after this fracture is usually due entirely to this angular formation in the repair. The object to be aimed at in treating this surgical condition is to prevent this angular deformity; that the two fragments take as nearly the normal line as it is possible to secure.

Each case must be treated according to its individual requirements; no routine methods of treating the condition can be laid down that will be suitable or applicable to every case.

The New York Medical Journal recently published a number of prize articles on this matter[1]. The consensus of the treatment outlined is to overcome the contraction of the muscles; this is well accomplished, first, by an anesthetic, and by flexion and abduction of the limb on the abdomen, with extension and complete immobilization of the limb, the limb to be flexed on the body to such an angle that will put the muscles at rest and reduce the fracture by bringing the two fragments in as near the normal line as it is possible.

Buck's extension apparatus, the double incline, the Smith anterior splint, and the external Hamilton splint are all suggested; but the measure which has the most in its favor, in a rational view, is the long traction splint commonly used in hip joint disease. This splint when adjusted to the required angle of inclination to secure the desired condition, with proper coaptation splint, well applied over the thigh properly padded and secured by adhesive strips and resting on an incline plane supporting the entire limb, undoubtedly gives the best results. This splint once adjusted to a desired angle will, in the absence of the surgeon, maintain this position, no matter what position the patient assumes.

H. P. Coile, M. D.,[2] urges the adjustment and use of the plaster of paris splint for this fracture, as well as other fractures, of the shaft of the femur. He advises the use of an anesthetic. This also has been used and suggested by others, and no doubt serves a very useful purpose. Dr. Coile notes that by the time that the relaxation from the effect of the anesthetic subsides the plaster splint will be hardened, thus preventing any possible shortening in the limb.

Dr. Hibbs also insists on the use of anesthetics for relief to the patient and its aid in reduction and its relaxing effect on the contracted muscles, relieving the spasm which does not again recur to the same degree as before.

It has been suggested[3] under aseptic surgery to cut down to the fractured site and of introducing a steel rod in the medulary canal and wiring the fragments together, thus preventing any possibility of forming an angle or shortening.

Undoubtedly the regular long traction splint applied carefully and with due consideration of the special conditions to be overcome, under an anesthetic with incline of proper angle on an incline rest, promises as good results as it is possible to attain under any treatment in these unfortunate cases.

In the retirement of Dr. W. E. Fitch from the editorial supervision and business management of "The Georgia Journal of Medicine and Surgery," the profession has lost one of its most able editors. This publication was founded by Dr. Fitch, who, by the way, hails from the Old North State, and it is to-day a living testimonial of his ability as an editor. In every outline it portrays his untiring efforts in the advancement of the science of medicine. We congratulate Dr. Fitch, however, in securing such a worthy successor in the personage of Dr. St. J. B. Graham, who has for some time been associated with the Journal in the capacity of assistant editor.

1. Russel A. Hibbs, New York Medical Journal, Feb. 1st, 1902, p. 177.

2. H. P. Coile, M. D., Knoxville, Tenn. Charlotte Medical Journal, Oct. 1901.

3. Hugh T. Nelson, M. D., Charlottsville, Va. New York Medical Journal, Feb. 8th, 1802, p. 260.

THE MEDICAL COLLEGES OF RICHMOND, VA.

The two medical colleges of Richmond are in a lovely little tilt just now. The causus belli is the appropriation of State funds for professional education. During the session of the Constitutional Convention in January 1902, Drs. Stuart McGuire, L. M. Cowardin and J. A. Hodges of the University College of Medicine appeared before the convention in protest of any appropriation of the funds. Drs. Christopher Tompkins and George Ben Johnson, of the Medical College of Virginia replied to the arguments of the above named gentlemen and now both have issued pamphlets containing the different papers.

Here's trusting that each may receive all they want, as they want, and when they want.

CLEVELAND MEDICAL JOURNAL.

Though the name, Cleveland Medical Journal, would indicate that this is a new publication in medical journalism, it is in reality, the consolidation of two well known journals, "The Cleveland Medical Gazette" and "The Cleveland Journal of Medicine." The guiding motive which prompted the consolidation was to unite as far as possible the entire medical profession of Cleveland. With such a worthy aim paramount the new Journal cannot but be a success. New life and enthusiasm will doubtless be instilled into the organization and we look for a model in every respect. We do not, for one moment, discount the work of either journal in the past, for both have been kept up to a high standard, at the same time we think that with co-operation of the two the result will surpass either of the former. Our best wishes to the youth.

Beginning with the first of March the subscription price of the Philadelphia Medical Journal to all new subscribers after that date will be $5.00. To all old subscribers the price will remain at $3.00 provided these send in their subscriptions in advance or remit promptly upon notification from the publishers. Anent the announcement the Journal most fittingly remarks that "in the present state of medical science no physician is well equipped who is not supplied with some one medical journal that reflects in a measure the whole field." Certainly no one factor is so instrumental in keeping physicians well posted and fully conversant with the times as the well edited medical journal.

THE McGUIRE MONUMENT.

The recent action of "Committee on Public Grounds, etc.," of one branch of the Virginia Legislature in giving its unanimous consent to "The Hunter McGuire Memorial Association" to allow the proposed monument of Dr. Hunter McGuire to be erected on the Capital Square, deserves special commendation. Already the square is ornamented with the monuments of warriors and statesmen, and there is no reason in the world why the memory of such an one as Dr. McGuire should not be perpetuated in this appropriate way.

The Columbian University of Washington, D. C., has just completed plans and let contracts for the erection of a new hospital building and a new medical and dental school on H St. N. W., between 13th and 14th. The building will be colonial in style. The hospital having a frontage of 60 feet to the south and the medical school building 50 x 144 feet will be five stories high.

Large new laboratories thoroughly equipped for modern work, well lighted lecture and reading rooms, will afford excellent facilities for medical and dental students.

Dr. A. M. Whisonant, formerly of Caroleen, has located in Charlotte. He will confine himself to his specialties, Eye, Ear, Nose and Throat. His office is located at No. 6, N. Tryon street. We extend to Dr. Whisonant a most cordial welcome.

The "Inter-state Medical Journal" of St. Louis has been improved very much by its new dress. This feature contributes a great deal to the appearance of any journal and we are glad to note the marked difference in this particular publication.

BOOK REVIEWS.

A Treatise on Medical Jurisprudence. Based on Lectures Delivered at University College, London. By George Vivian Poore, M.D. (Lond.), F.R.C.P., Professor of the Principles and Practice of Medicine, University College, London. With Illustrations. Cloth. Pp. 533. Price, $4.00. New York: Longmans, Green & Co. 1901.

"These lectures, delivered at the University College, London, and taken in shorthand for the Clinical Journal, are reproduced in this work. Its ready colloquial style and illustrative remarks on the cases make it almost as interesting as a novel.

It is especially adapted to English laws and usages and the references, of course, are made to the English statutes and practices rather than to the American, but that will not necessarily seriously affect its value to American readers. A few things here and there, as might be expected, are superficially treated, and it would not be entirely safe, for example, to follow the author's distinction as regards poisonous and non-poisonous mushrooms. There may be other slight inaccuracies but they are few, and on the whole the book will be a safe guide. Insanity is treated and much dependence seems to be placed upon the illustrations which are very fine. The book is one that can well be added to any specialist's library and would be convenient for consultation by both lawyer and physician."

A System of Physiologic Therapeutics. A Practical Exposition of the Methods, Other than Drug-giving, Useful in the Prevention of Disease and in the Treatment of the Sick, Edited by Solomon Solis-Cohen, A.M., M.D., Professor of Medicine and Therapeutics in the Philadelphia Polyclinic; Lecturer on Clinical Medicine at Jefferson Medical College; Physician to the Philadelphia Hospital and to the Rush Hospital for Consumption, etc. In Eleven Octavo Volumes. American, English, German, and French Authors. Volume vi, Dietotherapy and Food in Health. By Nathan S. Davis, Jr., A.M., M.D., Professor of the Principles and Practice of Medicine in Northwestern University Medical School; Physician to Mercer Hospital and Wesley Hospital, Chicago; Member of the American Medical Association, etc. Published by P. Blakiston's Son & Co., 1012 Walnut St., Philadelphia, 1901. Price for the Set, Complete, $27.50, net.

The problem of diet in disease is often the most serious with which the physician is confronted. In many instances the judicious regulation of the diet is of more importance than the prescription of drugs. It is fitting that special attention should be given to the subject of dietetics. In this volume Dr. Davis has followed a natural arrangement, and divided his work into two portions, the first of which treats of diet in health and the second of diet in disease. It is the latter which particularly concerns the practitioner, but to comprehend the utility of well-chosen food for the sick one must be well acquainted with the general principles relating to the nature of foods and the part which they play in the great process of nutrition.

These matters are duly considered in the present work. Dr. Davis has wisely incorporated the results of the many valuable studies pursued under the auspices of the United States Department of Agriculture.

In the second part of the book he enters upon the consideration of diet in disease. Dr. Davis takes up in succession infectious diseases, diseases of the stomach, the blood, the intestines, liver and peritoneum, the respiratory organs, the circulatory organs, the kidneys, the nervous system, the skin, and disorders of nutrition. In each chapter he discusses the principles by which we should be guided, and specifies the particular articles of food which are adapted to fulfill a useful purpose. The work is full of serviceable suggestions, and will be a reliable guide to the physician.

Morphinism and Narcomania from Opium, Cocain, Ether, Chloral, Chloroform, and other Narcotic Drugs; also the Etiology, Treatment, and Medicolegal Relations. By T. D. Crothers, M.D., Superintendent of Walnut Lodge Hospital, Conn.; Professor of Mental and Nervous Diseases, New York School of Clinical Medicine, etc. Handsome 12mo of 351 pages. Philadelphia and London: W. B. Saunders & Co., 1901. Cloth, $2.00 net.

The alarming increase, in the last few years, of morphomania and the associated various narcomanias imperatively demands immediate attention by the medical profession. Every year the increasing prominence of this psychosis calls for more exact studies, with a fuller recognition of the conditions and causes of the disease. Medicolegally, questions of responsibility have been asked with increasing frequency, and there has been no literature and no study of the subject to afford an intelligent answer until this present volume was initiated.

The special object of this work has been to group the general facts and outline some of the causes and symptoms common to most cases, and to suggest general methods of treatment and prevention. The object could not have been better accomplished. The work gives a general preliminary survey of this new field of psycopathy, and points out the possibilities from a larger and more accurate knowledge, and so indicates degrees of curability at present unknown. The author shows his absolute familiarity with his subject in the clear, concise, and in every way admirable work which he has given to the profession, whom he has placed under merited obligations.

Every physician ought to read this book and have it for reference.

Landis. A Compend of Obstetrics. Especially adapted to the use of Medical Students and Physicians. By Henry G. Landis, A.M., M.D., late Professor of Obstetrics and Diseases of Women in Starling Medical College. Revised and Edited by William H. Wells, M.D., Adjunct Professor of Obstetrics and Diseases of Infancy in the Philadelphia Polyclinic; Instructor of Obstetrics in the Jefferson Medical College, Philadelphia, etc. Seventh edition, illustrated. Published by P. Blakiston's Son & Co., 1012 Walnut Street, Philadelphia. 1901. Price, cloth binding, 80c; Interleaved for the addition of notes, $1.00, net,

The popularity of this compend is clearly attested by the numerous editions through which it has passed. From the 1st to the 7th, inclusive, it has undergone such careful revision that there is nothing lacking to bring it up to the highest standard of recent teachings in the science and art of midwifery. It is brief, clear and concise, without omitting facts which the student must master before taking his final examination, and it is unencumbered with unnecessary details to burden the memory or confuse the mind of the student. The subjects discussed are as follows: The Pelvis, Reproductive Organs, Pregnancy, Pathology of Pregnancy, Labor, Pathology of Labor, Obstetrical Operations, Puerperium, Newborn Child.

Mosquito Brigades and How to Organize Them. By Ronald Ross, F.R.C.S., D. P.H., F.R.S. Published by Longmans, Green & Co., New York, and George Philip & Son, London, England.

The problem of how to get rid of the mosquito is probably the most pressing one affecting the topics. Now that it is known that malarial fever, yellow fever, and elephantiasis are inoculated into human beings by the bites of these pests, comfort and security in the topics depend upon the measures adopted to rid ourselves of these insects. The name of this eminent physician intimately associated with the discovery of the malarial mosquito that anything he suggests for protection against this danger will receive earnest consideration. In the present volume he enumerates very readably the best known means of prophylaxis. Dr. Ross tells how to organize mosquito brigades from the first steps to the last stages of the campaign. Every sanitary officer should have this book and take to heart the lessons it imparts.

This book is bound in cloth and has one hundred pages.

History of Medicine. A brief outline o Medical History and Sects of Physician from the earliest historical period; wit an extended account of the new school of the Healing Art in the nineteenth century, and especially a history of th American Eclectic Practice of Medicine never before published. By Alexande Wilder, M.D., Honorary Member of th Liverpool (Eng.) Anthropological Socie ty, Vice-President of the "American Ak ademe," late Professor of Physiology an Psychological Science and Secretary o the National Eclectic Medical Associa tion of the United States, Member of th New York Medico-Legal Society, Presi dent of the "School of Philosophy" an Member of other Philosophic, Reforma tory and Scientific Societies, etc. Pric $2.75, net. New Sharon, Maine. Nev Eclectic Publishing Co. 1901.

This book of about nine hundred pages gives a history of the Eclectic Practice o Medicine in America. The author, Dr Wilder, is one or the most prominent mem bers of the school and the book now befor us is an evidence that he is an accomplishe writer and has given a brief, yet an accu rate, account of eclectic medicine in thi country.

Those interested in this subject will fin the book perfectly satisfactory.

A Practical Manual of Insanity. For th Student and General Practitioner. B Daniel R. Brower, A.M., M.D., LL.D. Professor of Nervous and Mental Disease in Rush Medical College, in Affiliatio with the University of Chicago, and i the Post-Graduate Medical School, Chi cago; and Henry M. Bannister, A.M., M D., formerly Senior Assistant Physician Illinois Eastern Hospital for the Insane Handsome octavo of 426 pages, with large number of full-page inserts. Phila delphia and London: W.B.Saunders & Co., 1902. Cloth, $3.00, net.

No graduate in medicine is thoroughl equipped to practice his profession unles he is acquainted with at least the rudiment of the science of psychiatry. Broad thoug its domain and difficult of mastery, ye every one may readily acquire knowledg of these principles upon which depend successful treatment of those cases of men tal disorder that form a part of every phy sician's practice.

This work, intended for the student an general practitioner, is an intelligible, up to-date exposition of the leading facts o psychiatry, and will be found of invaluab service, especially to the busy practitione unable to yield the time for a more exhaus

ve study. The work has been rendered iore practical by omitting elaborate case ecords and pathologic details, as well as iscussions of speculative and controversial uestions. Certain special features of the ork, also broadening its field of usefulness, re the mention of the forms of insanity not sually met with in hospitals, and the inclu- ing of a comparative table of classification nd a chapter on some of the ethical ques- ons relating to insanity as they may arise 1 the practice of medicine. Indeed, we now of no work of its scope that covers ie field so completely, yet concisely and learly, and we take pleasure in recommen- ing it to our readers.

rogressive Medicine, Vol. I., 1902. A Quarterly Digest of Advances, Discov- eries and Improvements in the Medical and Surgical Sciences. Edited by Ho- bart Amory Hare, M.D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadel- phia. Octavo, handsomely bound in cloth, 452 pages, 5 illustrations. Per Volume, $2.50, by express prepaid to any address. Per annum, in four cloth-bound volumes, $10.00. Lea Brothers & Co., Philadelphia and New York.

The reasons for the great success of this eriodical are not difficult to discover. The ditors of the different departments are ien of the highest standing as teachers and ractitioners, and the selections which they iake from the world's current literature or abstraction and critical review may be onfidently relied on to represent all that is est in the most recent medical writings. he contents of each volume are chosen ith the view of presenting what will be f the greatest practical value to physicians, o matter what may be their line of practice r the nature of their work.

In Volume I. for 1901 the surgery of the ead, neck and chest is considered by C. . Frazier. The account of recent wonder- il progress in the surgery of the Gasserian anglion, and of the heart will at once at- act the attention of all thoughtful medical en. There is no physican who can afford overlook the immense value of the nowledge that a wound of the heart may e operated upon with as little hesitation a wound of the brain, and that in peri- rditis with effusion, tapping the heart entirely practicable.

The section of infectious diseases by F. . Packard deals with typhoid fever, tu- rculosis, and the various eruptive dis- ses, the constant progress in the study of hich is revolutionizing all our previous ideas regarding their diagnoses and treat- ment.

Floyd M. Crandall writes of the diseases of children; the importance of pediatrics to the general practitioner is daily empha- sized and a knowledge of the recent ad- vances in the science of infant feeding has been rendered absolutely necessary.

The section on pathology by Ludvig Hektoen is a summary of the work being done in a science which underlies every de- partment of medicine and yet with which it is impossible for the clinician to familarize himself unless studied through some such medium as the present.

Laryngology and Rhinology are written by St. Clair Thomson, their relation to general diseases coming in for special con- sideration.

R. L. Randolph's section on Otology concludes the volume, discussing various problems of otology which bring it into re- lation with the general practice of medi- cine.

The very complete index which accom- panies the book renders it easy to consult. These quarterly volumes may be regarded as a progressive text-book of medicine, con- taining as they do contributions which cover every field of medicine and surgery, written by men who know exactly what is of the greatest value to the practitioners for whom they write.

The Standard Medical Directory of North America. 823 Imperial Octavo Pages. Handsomely Bound in Red Buckram. G. P. Engelhard & Co., Publishers, 358–362 Dearborn St., Chicago, Ill. Price, $10.00 (delivery prepaid).

This is one of the most comprehensive medical directories ever published. The 12 parts of this great work comprise a Di- rectory of the Physicians of all North America, and Directories of all allied medi- cal interests or products as follows:

Part I—Medical Colleges with sketch of each.

Part II—Directory of Physicians in the United States (including Porto Rico, the Philipines and Hawaii), the Canadian Pro- vinces, Cuba, Mexico, and the Central American States—over 120,000 names, with college and year of graduation.

Part III—Medical Corps of the U. S. Army and Navy, Officers of the Marine Hospital Service, Pension Examining Sur- geons, etc.

Part IV—Medical Societies, National, Inter-State, State, District, County and City.

Part V—Medical Legislation, including medical practice acts of all the States pre-

ceded by synopses and important administrative rulings; also members of State Health and Examining Boards.

Part VI—Medical Publications, including all Medical Books in present use, Medical Periodicals, Medical Libraries, etc.

Part VII—Hospitals and Sanitariums, Public Institutions, etc., in the United States and Canada.

Part VIII—Mineral Springs of the United States with properties, etc.

Part IX—All Drugs and Medicines, with properties, dose, form of administration, price, etc.

Part X—Medical and Surgical Products, classified.

Part XI—Manufacturers of Medical and Surgical Products.

Part XII—Life Insurance Companies.

This great Directory will be found most valuable by manufacturers desiring communication with the physicians of all or any part of North America or with medical colleges, hospitals, sanitariums, public institutions, etc.

Life Insurance Companies, Railway Companies and others similarly interested will here find the most accurate and reliable list of physicians for the selection of examiners, surgeons, etc.

Medical Colleges, Hospitals, Sanitariums, Publishers, State Boards and Municipal Health Boards will find it a source of constant interest and profit.

Physicians in general will find it invaluable for information concerning anybody or anything in the world of medicine.

Psychopathia Sexualis with Especial Reference to Antipathic Sexual Instinct. A Medico-Forensic Study. By Dr. R. V. Krafft-Ebing. The only authorized English translation of the tenth German edition. By F. J. Rebman. Published by W. T. Keener & Co., 90 Wabash Ave., Chicago. Price, $5 net. 1901.

This is the best if not the only book on this delicate subject. The standing of the author is a sufficient warrant that the subject matter is of the highest grade and practical in its instruction. The psychological, physiological and neurological phases of this subject are well handleds The medico-forensic feature also commend. it. A physician really needs a reference book of this kind in his library, for we are obliged to consider the subjects here mentioned.

This book contains 585 pages, is well printed and bound in half leather and cloth.

Syphilis. A Symposium. Special Contributions by L. Duncan Bulkley, A.M., M.D.; Follen Cabot, Jr., M.D.; Louis A. Duhring, M.D.; Prof. Fournier, M. D.; Eugene Fuller, M.D.; E. B. Gleason, M.D., William S. Gottheil, M.D.; Robert H. Greene, A.M., M.D.; J. D. Thomas, M.D.; Norman B. Gwyn, M. D.; Orville Horwitz, M.D.; Edward L. Keyes, M.D.; G. Frank Lydston, M.D.; D. J. McCarthy, M.D.; Thomas G. Morton, M.D.; Boardman Reed, M.D.; A. Robin, M.D. J. D. Thomas, M.D., E. B. Treat & Co., 241-243 West 23d Street, New York. 1902. Price, $1.00.

This extraordinary array of communications concerning syphilis, from seventeen different writers, nearly all of whom are syphilographers of prominence, many of whom have an international reputation as authorities, deserve more than an ordinary consideration. One hundred pages, neatly bound in cloth for one dollar, gives a great deal of valuable reading for this small sum.

Ophthalmic Myology. A Systematic Treatise on the Ocular Muscles. By G. C. Savage, M. D., Professor of Ophthalmology in the Medical Department of Vanderbilt University, Author of "New Truths in Ophthalmology," ex-President of the Nashville Academy of Medicine, ex-President of the Tennessee State Medical Society. Sixty-One Illustrative Cuts and Six Plates.

We are pleased to note the appearance of a new book by Dr. G. C. Savage of the Medical Department, bearing the above title. While the author is a very frequent contributor to medical society and professional journals, has printed several monographs, such as "Eye Strains," etc, and a book of 270 pages on "New truths in Ophthalmology," this his latest book, a solid volume of 589 pages, is by far his most pretentious and thorough work. While the writer of this short notice is in no way qualified to give a competent review or criticism of this technical work—the specialists in ophthalmology must and will do that—yet there are many propositions set forth in this book which may be appreciated by others than specialists.

Dr. Savage is a versatile man of marked ability as well as a specialist of rare proficiency. He is a most enthusiastic worker, whose first characteristic, as he has impressed me, is originality of thought. The book well illustrates these characteristics. The whole history of science is too full of instances of the fact that the weight of great authority, the very magic of a great name, is usually regarded as sufficient ground for

implicit acceptance of statements and theories without even the pretense of an independent investigation of their truth. Be it said to the lasting credit of the author of the book before us, that no theory is to him too sacred to be put to the most rigid test, and he has a genius for devising practical tests of theories. The first chapter develops fundamental principles, the following chapters, except the last two, being devoted to practical development and technical applications of these principles. While the author's originality and professional skill doubtless pervade the whole of this technical portion of the book, notice here will be confined to a few of the most important features of originality in the first chapter. We will note first Helmholtz's law of direction, which amounts to this: "As the eye looks at an object, the lines of direction of other objects in the field of view will intersect at what he called the nodal point, just at the posterior surface of the crystalline lense." Savage has long claimed that the point of intersection is the centre of retinal curvature, which is also the centre of rotation of the eye; and he considers that his discussion of the isogonal circle on page 16 is the best proof that he has yet offered on that point.

Probably more important than this is his entire repudiation of Listing's plane. Listing's plane is an arbitrary vertical plane, passing through the centre of the eye, and he held that whenever the eye was turned it was rotated on an axis lying in this plane. Helmholtz claimed that when the eye was rotated from a secondary position it was turned on an axis lying in the plane between Listing's plane and the equatorial plane of the eye.

We have given this proposition some attention, and are quite convinced that Savage is right in his claim that the axis of rotation always lies in the equatorial plane of the eye and lies in Listing's plane only when the equatorial plane happens to lie in Listing's plane, and that the rotations have no relation whatever to either Listing's plane or Helmholtz's plane. This proposition leads at once to the necessity of correcting "Listing's Law," which is worked out on page 52 et seq. A very convincing outline of laws of orientation is presented on page 36.

Hardly less important than any of the foregoing is the author's treatment of the subject of the twisting of the eye (or rotation on its visual axis) when turned to any oblique direction. Maddox works out the amount of this rotation, and Savage agrees with him as to the tendency of this rotation and its magnitude, but takes issue with the idea that the rotation actually takes place, and proves that this tendency to torsion is prevented by the oblique muscles of the eyes, and that the vertical axes of the eyes always remain parallel to each other and to the meridian plane of the head. The author has made to his specialty a contribution of enduring value.

General and Local Anesthesia, by Aimé Paul Heineck, M.D., Surgeon to Cook County Hospital; Instructor in Clinical Surgery, College of Physicians and Surgeons, Medical Department of the University of Illinois. Second Edition, Revised and Enlarged. G. P. Engelhard & Co., Chicago. 1901.

The competent anesthetist is the surgeons most valuable assistant. With this fact the author has endeavored to present in a concise from the technique of surgical, general and local anesthesia.

The book could have been made more academical, could have been made to include interesting discussions of as yet unsettled points, but as it is intended for the hospital interne and for the general practitioner it has been made thoroughly practical. Points that admit of controversy have been omitted. The methods that have been outlined are methods that are sanctioned by European and American clinicians. They are methods which have been tested in the authors surgical service at the Cook County Hospital.

The induction of anesthesia by subarachnoidean injections of cocaine solutions is not considered in this edition. The procedure is still in the experimental stage.

The Shadow Dwellers; (A Romance). By Robert Louis Freear. Isaac H. Blanchard Co., Publishers 268-270 Canal St. New York City. Price $1.25.

This is one of the brightest and most original books of the year. A delightful romance with a great purpose underlying it, but handled with such artistic and graceful style, that the interest never flags.

The plot is well sustained, full of interest and well balanced, and the entire book is written in so charming a style as to be a refreshing change from the realistic novels of the day.

LITERARY NOTES.

The April Forum opens with an article in which Sydney Brooks pertinently applies to our own problems in the Philippines the lessons to be drawn from "The Example of the Malay States" under British rule. Among other papers on questions affecting

foreign affairs are "The Anglo-Japanese Alliance," by A.Maurice Low,and "Prince Henry's Visit," by Prof. Paul S. Reinsch. There figure also, in the month's contents, discussion of various subjects of domestic politics now attracting the attention of Congress; such as "The Amendment of the Interstate Commerce Act,and Railroad Pooling," by W. A. Robertson; "Promotion in the Army," by Major John H.Parker; "Shall the United States Lease its Grazing Lands?" by John P. Irish; and "Proposed Amendments to the Constitution," by Henry Litchfield West. In educational matters, Yale is represented by Prof. Ladd's paper on "The Disintegration and Reconstruction of the Curriculum," and Harvard by Prof. Hanna's criticism of "Our Chaotic Education," while Mrs. M. K. Genthe, a Heidelberg Ph.D., gives an account of the present position of "Women at German Universities." Earley Vernon Wilcox makes several practical recommendations for the "Preservation of Large Game." A timely sketch of the characteristic tactics of "The Boer in Battle" is contributed by Edward B. Rose, a former resident of the Transvaal. In an article entitled "Is England being Americanized?" Herbert W. Howell replies to a paper on that subject in a former issue of the same magazine.

Annals of Surgery. A Monthly Review of Surgical Science and Practice. Edited by Lewis Stephen Pilcher, M.D., L.L.D., of New York, with the Collaboration of J. William White, Ph.D., M.D., of Philadelphia; William Macewen, M.D., of Glascow; W. H. A. Jacobson, M.Ch., of London. Published by J. B. Lippincott Co., Philadelphia, Pa. Great Britain: Cassell & Co., Limited; Australasia: Chas. Markell & Co., Sydney, N. S. W. Price in United States, $5.00 a Year in Advance. Single Number, 50 Cents. Price in Great Britain and Australasia, One Guinea a Year in Advance. Single Number, Two Shillings.

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The Review of Reviews for April is, as usual, full of interesting material on various subjects. Beside "The Progress of the World," treating of the important topics of the month, there is an article on the Anglo-Japanese Alliance from the Japanese point of view, a rapid review of our great "Captains of Industry," a description of the new Lying in Hospital in New York, and a character sketch of the late Col. Francis Wayland Parker. Other articles are "Educating the Deaf-Blind," "A New Factor in Lake Shipping," "Can Rural Social Forces be Federated?—A First Step," and a sketch of the late Charles Lewis Tiffany, the New York Jeweler. The "Leading Articles of the Month" Department gives a glimpse of much that is good in other magazines.

"What Women Like in Men," "What Men Like in Women," and "Husbands and Wives," are the titles of a series of very interesting papers by Rafford Pike, the third of which appears in The Cosmop-

olitan for April. The same number of the Cosmopolitan treats of Prince Henry's visit with a series of beautifully printed photographs under the title of "A Clever Emperor and a Confederation of Nations." F. Hopkinson Smith, Israel Zangwill, Bret Harte and Maarten Maartens are among the other contributors to this number, which is unusually good in fiction.

ABSTRACTS of the Leading Articles of the Month.

Bovine and Human Tuberculosis.

Smith (Medical News, Feb. 22, 1902) says cases of direct inoculation cannot decide the case, as this does not correspond to natural infection. Cowpox is inoculable, but no longer contagious. It is quite possible that something interferes with the absorption of bovine bacilli which lets human bacilli pass. Bovine bacilli present traits which serve to distinguish them from the majority isolated from the human subject. Differences in form, growth and virulence are described. Tuberculins made from bovine cultures have not differed in results from those obtained from human cultures, but subtle race differences could hardly survive repeated and prolonged boiling. There is less uniformity in the characters of human bacilli. Virulence fluctuates, but does not approach bovine virulence. The bovine like bacilli should be more thoroughly studied. If any are found agreeing in form, virulence and tissue reactions in inoculated animals with the bovine bacillus we must concede the case of bovine origin. Racial difference probably prevent absorption of bovine bacilli under ordinary circumstances, but while a few bacilli are harmless, flooding the digestive tract with bacilli from tuberculous udders is dangerous. While it is possible that modification may occur in the human body it is improbable except after a number of passages. The hypothesis of modification involves belief in a specific resistance neutralizing the high potency of the bovine bacillus. We have no right to assume either indiscriminate transfer to man nor that the human body cannot be invaded.

Management of Cerebral Hemorrhage and Its Abortive Treatment.

Browning (New York Medical Journal, Feb. 15, 1902) gives the following points in an excellent article on this subject: 1. Don't give stimulants. Their use in such cases is most reprehensible. The patient is prostrated, and the lay mind naturally turns to tonics and bracers—about the worst thing that can be done. 2. Don't resort to saline injections. During the acute stage a limitation of fluids is in order. 3. Don't use the depressant diaphoretics, such as ipecac, pilocarpine or apomorphine. They tend to nauseate, an inclination otherwise too common, and, in the degree of attempts at vomiting, most undesirable. 4. Don't prescribe digitalis. It is a dangerous drug in any individual with a liability to apoplexy, and, for this, if for no other reason, of unquestionable untility in nephritis. If anything of this sort must be used, strophanthus, in the author's experience, is by far the safest. 5. Don't resort to opiates. 6. Don't try nitrites. 7. Don't permit any muscular exertion on the patient's part; and moving by others should be limited as much as possible. In the subacute stage, the important question is, when should the patient be encouraged to sit up? He should be kept as quiet as possible for the first few days lest further effusion occur from the same vascular rupture. In about a week sitting up should be encouraged. Vascular depressants in lesser dose should be given at this time. Care should be taken that the patient should not be allowed to remain listless abed and thus a secondary dementia is favored. In the chronic stage, which is often hopeless enough, the use of nux vomica, massage, electrity, etc., are to be tried. The chief benefit will be derived from cultivating in the patient whatever power remains.

Eclampsia.

F. S. Newell (Boston Medical and Surgical Journal, Feb., 20, 1902) draws the following conclusions:

(1) In post-partum eclampsia the use of morphia and chloral in combination seems to have a distinctly beneficial action in comtrolling the convulsions. (2) In antepartum eclampsia the treatment is less efficient than in the post-partum form, but the course of the disease seems to be altered for the better in the majority of the cases. (3) Although the treatment has not given as good results in our cases as in those reported by Stroganoff, a further trial is indicated, since our results have not been any worse than under any other method of treatment which has been tried, and further experience may disclose errors in the application of the treatment which may be remedied to good effect. At any rate, a method of treatment which has proved so efficient in the hands of its originator should not be abandoned until it has had a more thorough trial than we have been able to give this one as yet. The method of Stroganoff is directed toward

the prevention of the convulsions by decreasing the irritability of the nervous system, and by removing all external sources of irritation, especially those connected with the birth canal. Another object sought for is the strengthening of the vital process by careful supervision of the cardiac and pulmonary circulation.

Treatment of Inoperable Cancer.

Cooper (West London Medical Journal) concludes an article as follows:

Since some cases have been cured, in cases of inoperable sarcoma, especially in the spindle-cell variety, the patient should have the option of taking Coley's fluid.

In cases of inoperable cancer of the breast in women about forty years old, in whom the menopause has not occurred, oophorectomy should be proposed, and this treatment may be combined with thyroid feeding.

In cases of inoperable rodent ulcer, and in the superficial malignant ulceration in other parts, the Roentgen rays give a good hope of improvement.

In cases where these methods are declined, or are inapplicable, the internal administration of celandine is worthy of trial, and when the case appears quite hopeless, morphine should be administered without hesitation.

The parenchymatous injections of acetic acid are also worthy of trial.

A Clinical Lecture on Feeding in Gastric Ulcer.

Laude Burton (British Med. Jour., March 2, 1902) says that a gastric ulcer must not be irritated by anything that will do harm to it, either mechanically or chemically. Amongst the things that injure mechanically are hard, indigestible things that really play the part of sandpaper. For example, seeds may be considered absolutely indigestible. Fish bones may sometimes give rise to great pain and danger. Cellulose, which is found in various vegetables, such as cabbage, and in the form of fruit skins, is quite indigestible in the stomach. Strings are found in meat, and it is upon the less or greater size of the strings of meat that their digestibility or indigestibility depends. Anything hard, that is likely to plug the pylorus, tends to increase the acidity of the stomach, which in cases of gastric ulcer is generally over the normal, while it should rather be diminished. Chicken, then, is better than mutton, and mutton better than beef in this respect. Milk sometimes comes under the head of stringy food. Lime water helps to prevent the stringing of milk, as does also the process of peptonizing it. Mastication will do much for these patients. In cases of gastric ulcer begin by giving the patient rest in bed, with feeding by the rectum a few days, then careful feeding by the mouth while rectal feeding is continued. The first food given is generally a small quantity of milk, and a tablespoonful of milk with the same quantity of lime water every two hours. The quantity of the milk may be gradually increased, while that of the lime water is diminished for a few days. Then custard may be tried, and pounded fish, followed by pounded chicken. Chocolate may also be given. When dealing with starchy foods, they must be made into a paste with cold water first, while hot water is added afterward. Stale bread is far more digestible than fresh bread.

Sulphuric Acid to Remove Geruminous Plugs.

Meierhof (Medical Review of Reviews) says that the difficulty is at times encountered with the syringe in removing the mass. There is temptation to employ force, with a consequent danger in the sudden removal of the plug, which would damage the tympanic membrane. To aid in removing these plugs, various substances have been employed to soften or to partly dissolve the mass. Alcohol, glycerin, and the various salts of sodium have been used, and also, of late, peroxide of hydrogen. Meierhof has tried all of these solvents, but not with the success that he had with undiluted sulphuric ether poured from a small bottle or from a suitable pipette into the external auditory canal. The ether acts in a few seconds, partly disolving the cerumen from its attachment to the canal, so that with the most gentle syringing the plug is promptly removed. No dizziness or other ill effect has been seen from the use of the ether. If there is any hesitancy to employ pure ether, there is recommended a mixture of equal parts of ether and alcohol.

Concerning the Hypnotic Action of Apomorphin Hydrochlorate in Alcoholism.

Drs. Colemen and Polk (American Medicine, March, 8, 1902). To obtain the hypnotic action of the drug it should be given hyperdermically. The dose cannot be fixed. It is well to begin with 1-30 gr., or less, and to repeat this or give a slightly larger dose within a short time. Should vomiting occur, the drug should be discontinued for several hours. Doses repeated in two or three hours have but little beneficial effect. The administration of apomorphin should not be repeated in patients who are weak. The hypnotic action of the drug lasts only a few hours, and when the patient awakes the condition is practically unchanged. The best results are

obtained from the drug when it is followed in two or three hours by some recognized hypnotic. Apomorphin should always be given in fresh solution. The most favorable results are obtained in ordinary drunks and in cases verging on delirium tremens, but in the latter cases apomorphin has no beneficial effect.

On Floating Kidney as a Cause of Obstructive Jaundice and Hepatic Colic.

J. Hutchinson (The Practioner) says that we have the following factors to explain the occurrence of obstructive jaundice with floating kidney:

1. Downward displacement of the third part of the duodenum, with stretching of the common bile duct; 2. Displacement of the gallbladder and sharp kinking of the cystic duct; 3. Torsion of the vertical part of the duodenum and, perhaps, even of the bile duct. Weisker's theory of traction through bands of the peritoneal investment of the right kidney connecting it with liver, the author has not found to be substantiated by the cases he has had under observation. As to treatment, a visit to Carlsbad, with prolonged medicinal treatment, can do no good in cases in which the "billiousness" and indigestion are due solely to the presence of a floating kidney. It may further be suggested that the neurotic or hysterical temperament, which is by some attributed to the subjects of floating kidney, is not infrequently the direct result of the latter condition and of the absence of proper surgical treatment. The number of chronic invalids would be appreciably diminished by the proper recognition of the effects of floating kidney, and the early adoption of the only satisfactory treatment—nephropexy.

Hypostatic Albuminuria of Splenic Origin.

H. D. Rolleston (The London Lancet, March 1, 1902) states that in some patients with considerable splenic enlargement rest in bed or in the recumbent position may be accompanied by albuminuria, and that the albumin may disappear from the urine when the patient assumes the erect position. While the albuminuria is probably due to the mechanical pressure of the spleen on the left renal vein in the recumbent posture, the occurrence of this intermittent or hypostatic albuminuria is very far from being constant in cases of splenic enlargement. In this it resembles albuminuria from chronic venous engorgement induced in other ways, as, for example, in the backward pressure of mitral disease. It does not depend on the size of the spleen, for hypostatic albuminuria may be, and, indeed, usually is, absent when the spleen is very large, and may be present where the spleen is relatively smaller. It is possible that its occurrence or absence may depend on some difference, such as elongation, in the condition of the suspensory peritoneal ligaments of the spleen, which thus determine or prevent direct pressure on the left renal vein. On this point there is as yet no anatomical evidence. It is also conceivable that the appearance of albuminuria is dependent on an underlying want of vitality or nutrition in the kidney, which though not sufficiently marked to induce albuminuria under ordinary conditions, does so when chronic venous engorgement is superadded. This is, to some extent, supported by the observation that in one case albuminuria disappeared from the night urine after the patient had been some time in hospital, and had somewhat improved under treatment; subsequently after a slight attack of influenza the night urine again contained albumin.

The Haab Magnet.

Dr. Frank Van Fleet (Post-Graduate) says:

All other conditions being equal, the chances of removing a piece of iron or steel from the interior of the eye and saving the eye will be inversely as the interval between the injury and the time the magnet is applied.

An eye which is to be subjected to the magnet should be prepared as carefully as if one were about to extract a cataract.

The chance of recovery is better, and the possibility of sympathetic troubles in the fellow eye less, if the point of penetration of the foreign body does not involve the ciliary region.

The point of the magnet need not necessarily, be placed at the center of the cornea, as recommended in the Fuchs. Indeed, it is better to place the point of the magnet over the wound through which the foreign body has entered.

If the eye bulges on contact with the magnet, and the foreign body does not make its exit easily, it is better to enlarge the original wound. The magnet will sometimes tear the piece of metal through the wound, and thus increase the amount of traumatism and danger to the eye.

Sometimes when the magnet approaches an eye in which there is a piece of metal capable of being acted on, the globe can be observed to move forward as if to meet the magnet. This is not always the case, however, and the surgeon should not hastily decide that no piece of metal is in the eye, if no movement is observed. In one case where the eye was filled with blood, and it was impossible to get a view of the interior,

the magnet was applied without result. After an interval of a few minutes it was again applied without result. The author had about decided that there was nothing in the eye which the magnet would attract, but concluded to make a final contact, when a small piece of iron came through the wound, and fastened itself on the point of the magnet. This not unusual experience is explained by Callan on the hypothesis that it is necessary for the iron to become magnetized before the attractive force can be extracted.

The Haab magnet is certainly one of the most useful additions to the armamentarium of the ophthalmologist, one of the many products of the last century for the benefit of mankind. Our readers will therefore be interested not only in an illustration of the magnet, but also of the Ophthalmic Hospital at Zurich, where Dr. Haab teaches ophthalmology to a numerous class of eager students.

Dementia Praecox.

Christian, (American Journal of Insanity), says that all forms of insanity may occur at puberty; the definite and special form of insanity known as hebephrenia, or dementia præcox, begins constantly at the age of puberty; there are various delirious symptoms at the beginning, constant sudden impulses, and a rapid termination in a dementia which is more or less complete.

The dementia præcox when it has reached its greatest degree is the dementia of an idiot reduced to a vegetative existence. There remains in this state of absolute indifference to all that passes before them, an impulsive tendency which is manifested by sudden cries or paroxysms. He tears his clothes, or throws things around, or kicks or shakes his neighbor.

A gradual effacement of intelligence and a feeling of distress in the head may be the only symptoms discoverable. The child becomes idle, absent-minded, and lacks application. He becomes irritable and seeks to be alone, or complains of fatigue, pains in the head, of vertigo. Insomnia and anorexia may be present. This state may be prolonged for weeks. Various morbid or hallucinatory ideas develop.

When this quiets down the condition of dementia may be developed gradually, incomplete or complete, apathetic, and may be katatonic.

In diagnosing a precocious dement it must be remembered that physical stigmata are not common. The previous history absolutely distinguish it from idiocy and imbecility, as well as from epileptic dementia, dementia following cranial traumatism or alcoholic dementia.

The prognosis and treatment are hopeless.

Prevention of Pelvic Inflammatory Disease After Marriage.

Hall (Boston Medical and Surgical Journal, Feb. 13, 1902) mentions as the causes of this condition, gonorrhœal infection, exposure during the menstrual period, and septic infection following abortion. Laceration of the cervix and perineum plays no insignificant role in the cause of pelvic inflammation. In laceration of the cervix, with the usual laceration of the perineum and the retroversion that so often accompanies these injuries, with the endometritis following it if the injuries are not repaired, we have a condition present which may lead to pelvic disease in a large percentage of these cases. These patients all have subinvolution following their delivery, and many of them drift along until the endometritis becomes chronic or, even, a salpingitis is established. It is the physician's duty to repair the cervix and perineum within a few months after injury, before chronic endometritis and salpingitis are established, and before the uterus has been in the malposition long enough to cause extensive disease of the ovaries from pressure, to which the ovaries are always subjected after they are dragged down with the uterus in its abdominal position.

Contagious Acute Articular Rheumatism.

Allaria (British Medical Journal) relates his observations of a small epidemic of acute articular rheumatism of contagious nature. The first case occurred in a girl, aged 16 years, who had had two previous attacks, in one which a lesion of the mitral valve developed. Her sister had had an attack beginning one day after the first patient's second attack, and now in the third attack (a classical acute articular rheumatism) the same sister nursed her, and herself developed the diseae for the second time. A friend that came to visit the second patient developed acute articular rheumatism. All three cases began with acute tonsillitis. Three nurses whose duty it was to paint the throat of the first patients were attacked in succession within a short time—the third nurse, however, developing merely acute tonsillitis. Bacteriologic examination of the tonsillar exudate from the first three patients revealed two organisms: One a staphylococcus nonpathogenic for guinea-pigs, the other a very small coccus, usually arranged in pairs or in short chains of four to eight, straining deeply by Gram's method, grow-

ing readily on agar with blood, but not so well on simple agar. This resembled closely Meyer's streptodiplococcus. A 48 hour culture injected in dose of 1 cc. had no local action in guineapigs; the animals languished and at the end of four or five days painful swelling of different joints appeared. Recovery ensued. Some of the animals being killed, their joints were found full of limpid serous fluid, which on microscopic examination was found to be slightly corpuscular. No microorganisms could be detected microscopically, but the cocci were recovered from the exudation by cultural methods. These are extremely interesting observations and constitute merely another link in the chain of evidence that prove that of which there can no longer be any doubt—namely, that acute articular rheumatism is an acute infective disease the result of some bacterial invasion.

Hydrocele.

Shield (Medical Press and Circular) describes the causation, symptoms and diagnosis. Radical cure when dependent on disease of the testicle should not be attempted. Cure by injection should not be tried when the sac is thick or communicates with the abdominal cavity. An objection to iodin is that the epididymis is generally inflamed by it. When used, no hodrocele fluid should remain in the sac to dilute it. Cocain previously injected diminishes smarting. Carbolic acid is more popular, as less painful. Radical cure by excision requires rest for two or three weeks in bed. In operating, twisting of the cord in replacing, and secondary hemorrhage, must be guarded against. In a little child injections of iodin or carbolic may cause sloughing and endanger life. Ordinary hydrocele in infants may disappear if left alone. Slightly irritating lotions may be painted on the scrotum as a placebo. Acu-puncture may next be tried and then incision. The sac may extend up the inguinal canal simulating hernia. In encysted hydroceles exploratory incision may be necessary for diagnosis. Owing to their close connections with the epididymus, cutting away of a portion of the sac is the best method. Incongenital hydrocele operation like that for the radical cure of hernia is advised. Hydrosarcocele is often a puzzling condition. Incision will clear up the diagnosis. There is no objection to tapping if care is taken not to wound the enlarged testis.

Presence of Stone Shown by Scratches on Wax-Tipped Catheters.

Kelly (Journal of Obstetrics,) says that success of the method depends upon care and skill on the part of the examiner, together with attention to detail in preparing the instrument. The presence of the scratch-marks is the most important feature in diagnosis of calculus by this means, but the method affords valuable confirmatory evidence in other ways. In ureteral calculus the method by dilating the ureter and thus inducing the escape of the stone through the natural channel may obviate the necessity for operation. If all precautions have been taken, the presence of scratch-marks is positive evidence of the existence of calculus; but the abscence of scratch-marks cannot be accepted as proof that no stone exists. The possible presence of a double ureter, with two openings into the bladder, should always be borne in mind.

Atonic Dyspepsia.

Wm. Carter (Birm. Med. Rev.,) recognizes two types, namely, atony with stagnation, in which the stomach fails to empty itself within the four to five hours intervening between two successive meals, but becomes empty overnight, and atony with retention, in which the stomach never empties itself. The disease may be secondary to nervous or secretory disorders of the stomach or to pyloric obstruction, in which case its significance is entirely subordinate. When it is the primary disorder, it is traceable etiologically to two groups of causes, namely, those acting directly on the stomach, such as excess in drinking and eating, hurried meals, large drinks between meals, and so on, and, secondly, to those acting indirectly by lowering of the general health and nutrition. With regard to the recognition of motor insufficiency. He asserts that Chomel's sign, gastric succussion, is by far the most generally useful. In obtaining it, one should see that the abdominal wall is thoroughly relaxed, and the shock transmitted by the fingers should be suddenly produced and strictly vertical in direction. When positive, it invariably indicates the presence of fluids in the stomach. It may be confirmed by the use of the stomach-tube, and by the salol test of Ewald. The grade of muscular paresis present is, of course, indicated by the length of time after preceding meal during which succussion is still elicitable. The dilatation, or gastroptosis, is revealed by the altered contour of the abdomen, by observation of the area over which succussion may be induced, and, if necessary, by inflation of the stomach. In the treatment of the milder grades, the chief indications in the way of diet are to avoid overdistention. One may either give small meals at

shorter intervals than usual, a plan which is advisable when the appetite is poor, or one may give carefully selected but substantial meals at longer intervals than usual. With regard to the character of the food the two most important rules are: 1. Reduction of fluid taken with food to a minimum; and 2, the selection of a mixed diet, consisting of compact nutritious food. Fermentable foods are to be avoided. Drinks are to be taken when the stomach is empty, as on arising, or at bedtime. The most careful drug is strychnine; the best aperient,aloes or cascara. In atony with retention, it is best to put the patient to bed for a week or so. The dietary indications are those already outlined. In most cases, lavage of the stomach is essential for really good results and should be practiced in the morning. Warm water, containing a dram of boric acid and from 15 to 20 grains of salicylic acid to the pint is the best medium. Bismuth, sulphocarbolate of soda, and resorcin may also be used.

Ligation of the Abdominal Aorta for Aneurysm.

Morris (Annals of Surgery, Feb., 1902) reports an operation which is the fourteenth recorded operation of this kind. The patient was a colored woman of 24, who gave no history of syphilis, but was suffering from suppurative nephritis of the left kidney. Necropsy revealed atheroma of the aorta, evidently of a syphilitic character, and the suppurative nephritis was probably caused by ulceration of a gumma of the kidney. The patient had suffered from constant pain in the right epigastrium for four months, accompanied by vomiting, which became so continous that at the end of two months she was too feeble to walk. About this time she first noticed a pulsating tumor in the epigastrium which increased rapidly in size. On admission the typical signs of aneurysm of the aorta were present. A six-inch incision was made from the ensiform cartilage to the umbillicus. A soft rubber catheter, 12 mm. in circumference, was carried around the aorta with the aid of the aneurysm needle threaded with a loop of silk. The catheter was drawn tightly until the circulation in the femoral arteries ceased, and was held in place by a long clamp to avoid tying. The ends of the catheter and the forceps were brought out of the abdominal wound. The incision was then closed as far as possible. The ligature was placed two inches below the aneurysm, 1½ inches from the bifurcation of the aorta. The operation required 30 minutes. Immediately after tightening the ligature the patient's pulse went to 148, and the respiration to 48; the pulse became hard and throbbing, the skin warm and moist. Nine hours after the operation the pulse had come down to 104, the respiration to 36. There was intense pain and numbness in the legs; 22 hours after the operation expansile pulsation began to diminish and the tumor to decrease in size; 27 hours after the operation pulsation had entirely ceased, and the ligature was removed from the aorta by unclamping the forceps and withdrawing the catheter. Return of the pulsation in both femorals showed that the circulation of the extremities was again restored. The patient developed symptoms of septicemia soon after, and died 53 hours after the operation. At the necropsy a small portion of the gangrenous bowel was found. The aneurysm was of the dissecting variety, involving the walls of the aorta from the celiac axis to the mesenteric vessels. It was filled with bloodclots. He says that this case demonstrates the possibility of the formation of clots in an aneurysm by the application of a temporary ligature, and that circulation in the extremities may be re-established on removal of the ligature—that this operation will be successfully accomplished in the near future.

Autoxintoxication and Disease from a Practitioner's Standpoint.

Beverly Robinson (Medical Record, Feb. 15, 1902) says that the neurologist emphasizes rather too much intestinal autointoxication and medicates in part at least with drugs in such form as to be only soluble in the intestine, and not at all in the stomach. He states that this view is a contracted one and he does not admit the presence of changes in a limited portion of the digestive tract as separated from the rest. Drugs must be in solution to be useful and they must affect the stomach favorably and not solely in the intestines. Robinson advises the administration of beechwood creosote in small doses cobined with essence of pepsin and properly diluted with water or alcohol and water. In addition to the antiseptic medication drinking freely of water is advised, as well as massage, rest, good diet, hydrotherapy, electricity and systematic exercise. Robinson mentions that the general practitioner as a rule believes that too much stress is laid upon gastro-intestinal fermentation as being directly causative. This factor is only an element and not an entirety. We must not overlook the "wear and tear" of modern life, the influence of impoverished blood, excesses, poor hygenic surroundings, all of which tend to lower the tones of the nervous system and thus render the economy an easier prey to microbic infection, which if the

body were in a healthy state would not take hold and produce diseases of different sorts. He advises in the treatment of these cases the creosote as mentioned, as well as the use of charcoal and the subnitrate of bismuth. In certain cases in which there is lowered nerve tone the writer has secured better results from dilute phosphoric acid than from the intestinal antiseptics. In a class of patients who are languid, depressed, and introspective a moderate temporary course of static electricity is often highly beneficial. Faradism applied through water is frequently curative in cases possessing manifestations of rheumatism due to autointoxication. The author does not believe that any amount of flushing of the colon will prove of value unless a suitable purgative is employed at the beginning of the treatment. The question of diet is an important one and must be studied carefully and the particular needs of each case be determined.

Dr. Adami's Criticism of Koch.

The Philadelphia Medical Journal, Feb. 22, 1902, discusses Dr. Adami's criticism of Kouch. The Editor says, theoretically speaking, medical literature should be divided into three groups, each requiring different treatment. The first of these is the narration of new facts, either derived from experiments or from observation; the second, the criticism of the facts; and the third, articles designed merely for instruction and the communication of more or less well established facts and theories. Any one who studies modern medical literature will realize in a very short time that the first and third of these groups are being done to death. Not that we object to the addition of new facts, but that entirely too much so-called original research, that lacks both originality and the evidence of intelligent investigation, is being foisted upon the readers of the journals. It is refreshing, therefore, to find an article written by a man amply qualified for the task, which consists of a careful and intelligent criticism of a certain group of articles that have recently been exciting considerable attention, partly because to the vast majority of physicians the subjects discussed in them were novel, partly because they are of the utmost practical importance to the morbidity and mortality of the population. Inspired by the recent publication of Koch, which is the principal object of his analysis, Adami has gone carefully over the whole subject of the relation of human to bovine tuberculosis, and has analyzed the literature and the divergent views of different experimenters; and we learn from his paper, which we publish as a special article in this issue, that, in spite of the vigor of the arguments, the actual results of experimentation are not essentially contradictory. Thus, all observers agree that the human tubercle bacillus is comparatively slightly virulent for cattle, (Ravenel has since shown that this is not invariably true); that varieties of the human tubercle bacillus may be exceptionally virulent; that the bovine tubercle bacillus is not so virulent for human beings as the human tubercle bacillus, but that, nevertheless, either species may be infected by microorganisms derived from the other under certain circumstances. The important fact derived from this and the studies of tuberculosis in fish, chickens, etc., is, that we have varieties and not species of tubercle bacilli. Therefore, the advice of Koch to disregard bovine tuberculosis as a cause of infection in human beings is not only false, but was, as Adami says, little less than criminal on his part.

The timeliness and importance of Dr. Adami's article cannot be overestimated.

The Effect of Alcohol on Digestion.

J. A. Storck (New Orleans Medical and Surgical Journal) states that from his experimental studies that small quantities of alcohol favor salivary and gastric digestion. Alcohol, whisky, gin and brandy are less harmful to the digestive processes than are malt liquors and wines. The continuous use of alcohol, even in small amounts, is liable to prove detrimental to the digestive process. In persons of weak digestion alcohol, as a rule, is harmful unless given well diluted. Strong alcoholics should never be given when the stomach is free of food. Alcohol is a valuable food in disease; requiring no primary assimilation, it yields force rapidly to an exhausted system, and, in small quantities, it promotes appetite. It is well to bear in mind that the purer the whisky or the brandy, the less liable it is to produce digestive disturbances. According to Dujardin-Beaumetz, the toxic effects of the alcohols increase with their atomic weights, with the exception of the highest and the lowest. Finally, it is true, as Wood says, that "science in no way contradicts the experience of every bon vivant that the small doses of alcohol increase, and larger amounts interfere, with the activity of digestion."

One of the Etiologic Factors in the Production of Deflected and Deformed Nasal Septa and the Method for its Relief.

N. M. Black (American Medicine, Feb. 15, 1902), after a thorough discussion of this subject concludes an article as follows:

In cases of deflected septum the bony

structure has become weakened primarily by traumatism, strumous or rachitic diathesis, nasopharyngeal adenoids, or the result of some of the infectious diseases of childhood, in fact, anything which tends to lessen the resisting power of the bony septum. The resistance to what seems to be the natural tendency of the palate portion of the maxilla to becoming more V-shaped, being to a certain extent weakened in the median line, it continues to arch, buckling the already weakened perpendicular septum more and more, the cartilaginous portion yielding the most (as it is the weakest and is two-thirds surrounded by the bony structures of the septum) until it occludes the snares. It must be remembered that the etiologic features which tend to produce irregularities of the superior maxillia are causative factors as well. In order to achieve a satisfactory and permanent result in deflected and deformed nasal septa with the high arched palate, we should go to the specialist and primarily have removed the active factors, the high-arched palate and acute-angle alveolar processes.

Inversion of the Uterus.

E. W. Cushing, (Boston Medical and Surgical Journal, February 15th, 1902) says for such cases three procedures are applicable: 1. There is the method of Thomas, in which the abdomen is opened and the funnel dilated so that the uterus can be replaced in its proper position. 2. The vaginal amputation of the uterus, which is easy of performance, and which of course cures the malady but robs a woman of her uterus. 3. There is the method of Kuestner, by which the cul-de-sac of Douglas is opened from the vagina, the funnel dilated if possible, and the uterus replace, or, if this cannot be accomplished, the uterus is incised on its posterior aspect, as far as may be necessary to accomplish its reposition, and then the incision in the uterine tissue is sewed up, and the opening in the posterior vaginal fornix is closed. As a modification of this operation the anterior fornix may be incised, the bladder separated from the uterus, and then the latter may be incised anteriorly as for as is necessary, when the fundus is replaced, its incision sutured, and the uterus fastened forward by the method of Mackerlrodt. The author quotes a case as illustrative of the superiority of the Trendelenburg position in Thomas' operation for inversion of the uterus

Tuberculosis of the Middle Ear.

Charles Trow, (Canada Lancet, January), says:

Tuberculosis of the ear may be acute or chronic. In the former there is generally diffuse cellular infiltration of the mucous membrane, and proliferation of the cellular elements; there are few, if any, giant cells, but a large number of tubercle bacilli. The mucous membrane breaks down rapidly with resulting great loss of substance. This form occurs in debilitated subjects, and death usually soon ensues. In the chronic form, superficial circumscribed masses of tubercle are seen on the mucous membrane; their centres become caseous, and giant cells are developed; but bacilli are not abundant. Ulceration and fresh deposits of tubercle take place in the deeper layers. The mucous membrane becomes thickened, granulation springs up on the surface, and, under favorable circumstances, connective tissues may form, with healing as the ultimate result; but unlike simple granulation tissue, there is a constant tendeney to retrogressive changes and infection by pus organisms, and thus it is not frequent that we have such a favorable ending. In the great majority of cases the disease extends wider and deeper; the bones become involved, and perhaps the meninges and brain.

It is much more frequent as a secondary infection than as a primary, and generally takes place through the Eustachian tube or a perforation in the drum membrane. Often it is insidious, sometimes occurring without rupture of the drum membrane, with no pain or only of an indefinite character. There may be little purulent discharge, the bones being eroded by caries sicca. The membrane surrounding the perforations (usually several if the drum is not gone) is a pale greyish-yellow, or having a blue-white, glossy, œdematous appearance, and giving issue to a thin, ichorous, fœtid discharge. Early implication and enlargement of the surrounding glands is an important symptom. The bony structures may be quickly involved and the entire mastoid broken down.

The treatment of aural tuberculosis is essentially that of tubercular disease elsewhere, such as good air, nourishing food, proper clothing, and the general constitutional remedies most suited to the individual conditions, the hypophosphites, strychnine,creasote, etc. Local treatment may be considered under two headings, operative and medical, the choice depending upon the extent of the aural involvement, the presence or absence of tuberculosis elsewhere, and the general physical condition of the patient.

When there is marked debility and emaciation, facial paralysis and masses of enlarged glands, and where the discharge is abundant, fœtid, and blood-stained, pallia-

tive measures, antiseptic treatment, and if possible, residence at the seaside, are more strongly indicated than operation, but the prognosis is bad.

If there is no ascertainable tubercular focus elsewhere, and the area of aural infection is limited, operation may be required. This consists in the free opening of the mastoid cells if they are affected, scraping away of all softened and carious bone (repeated if necessary), and encouragement of granulation from the bottom.

In the middle ear, keep the part as clean and dry as possible. All pus and debris should be removed as frequently as required. Granulation tissue should be snared away or cauterized, and kept down by chromic acid. The use of antiseptic washes and antiseptic powders regularly, once or more often each day.

Problems of Serum Therapy.

McFarland (Journal of the American Medical Association, Feb. 15, 1902) says that advancing knowledge increases the evidence that immunity serums operate chemically. Antitoxins have been developed for different vegetable and animal poisons, and for arsenic and also antagonists to the action of such principles as rennet. In rare cases normal serum exhibits the same activity as that specially immunized. The "lateral chain" theory of Ehrlich gives the most satisfactory explanation of the formation of antitoxins. The separation of toxin and antitoxin when mixed under proper conditions is probably impossible. Time and heat are essential. Filtration experiments also prove a chemic combination. Test-tube experiments with ricin and antiricin, with rennet and antirennene, with tetanolysin and immune serum, and others, are among the best proofs that the reaction does not occur through some indirect action of the body cells. In addition to the "immune body" another substance called "addiment," complimentary to it, is described, and much depends on the order in which the factors to the reaction are brought together, the former operating only in the presence of the latter. Improvement after injections of normal serums is explained by assuming that it supplies a deficiency in this complementary substance. The introduction of any kind of cellular tissue into the body increases the ability of the blood to destroy that kind of tissue. The possibility of attacking cancer by means of comminuted epithelium at once appeals to us.

Faulty Uterine Growth.

D. H. Craig (Boston Medical and Surgical Journal, Feb. 13, 1902) divides this condition of the uterus into 2 classes—inhibition, or absence or growth, and tardy or delayed growth. In the former the distinguished characteristic is the length of the cervical and canal which exceeds the length of the cavity of the body; and in this socalled fetal uterus the prognosis is doubtful and treatment of little value. In the second class the two cavities are equal length or the body is slightly longer. Here treatment seems to be of value and the prognosis is hopeful. Most cases of this class have been in girls of slight frame and low stature with a marked look of childishness and who generally have had a quiet, sedentary and particularly studious childhood. The girl of about 17 gives a history of either never having had the slightest menstrual molimena or having very scanty, abortive catamenia at widely-separated and irregular intervals. Such a history only needs physical confirmation, in which the principal factor must be the uterine probe to test the comparative length of cervix and body of the uterus. As to treatment, require an active out-of-door life, horseback riding if practicable, all forms of gymnastics, Swedish movements, etc. Use iron, because of its well-known action in determining an increased amount of blood to the pelvis; Bland's mixture is preferred in combination with extract of nux vomica and extract of cascara. For local treatment intracervical application of impure carbolic acid, negative galvanism, and faradism; and these are to be supplemented by prescribing for the patient's home use 2-quart very hot douches each night. In obstinate cases discision may be practised and has proved almost invariably useful. After the uterus has begun to grow it of course will sag as the ligaments strengthen more slowly, a marked tendency to retroversion exists and a pessary becomes the only practical method of giving the needed support. By the above treatment he has obtained most gratifying results, and patients have gained uteri which gave every evidence of being normal.

Atrophy of the Mucous Membrane of the Stomach with Chronic Intestitial Nephritis.

Vierhuff (St Petersburg Med. Weekly), states the following case:

A woman sixty years of age, who previously for fifteen years had suffered from calculi of the kidney, came for treatment for stomach trouble of one year's standing; she could bear only liquid food, vomited very often, etc.

The examination after a trial breakfast showed remnants of undigested food, lacking in free hydrochloric acid and pepsin;

lacking also in waste products, indicating chronic nephritis.

The urine increasing in quantity with a specific gravity of 1009. But the patient died with signs of starvation. The autopsy revealed granulation, formation of calculi in both kidneys, with atrophy of the structures to such an extent that the boundaries and relations could not be differentiated. The mucous membrane was atrophied, thin, and almost free from folds; the walls of the stomach were thin as well. A microscopical examination showed atrophy of the mucosa and especially so of the glands.

Senile atrophy of the mucous membrane of the stomach is excluded; whereas the usual change of age in the mucous membrane in the organ was lacking. Vierhuff assumes from this that the toxic influx of the disturbed function of the kidney, as a consequence, has caused the change of the mucous membrane. In like manner ulcers of the mucous membrane of the intestines arise. Possibly it is also the toxic influx that suppresses the secretion of free hydrochloric acid in cases of carcinoma, diabetes, anemia, and tuberculosis. The toxic action in all these cases extends not only over the mucous membrane, but also the blood.

Choked Disk.

Merz (Archives of Ophthalmology) has come to the following conclusions from his studies on the etiology of choked disk:

1. Increased intracranial tension alone is sufficient to produce choked disk, and it is only necessary that this tension should be maintained uninterruptedly for some time. Transient increased tension, even when often respeated, leads only to venous hyperemia and arterial anemia of the fundus.

2. In order to produce choked disk the tension needs to be increased but slightly, 8 to 15 mm. of mercury or less.

3. The eyes of the dog and of the rabbit react differently to intracranial tension; while in the former the choked disk is rapidly produced, it can rarely, in the latter, be brought about at all, on account of the deep physiologic cup and the relation of the vessels to the optic nerve. This possibly accounts for the diverse results of different experimenters.

4. The first clinical sign of increased intracranial tension seems to be the change in retinal circulation, dilatation of the veins and contraction of the arteries.

5. The nearer to the eye the vessels perforate the sheath of the nerve, the earlier the changes in retinal circulation appear.

6. In the production of experimental choked disk several succeeding factors are probably important: First, the increased tension leads to compression of the venous sinuses of the brain, disturbing the venous circulation in the eye. Then is added the stasis of liquid in the subvaginal space and the compression of the vessels in their course from their passage through the nerve sheath to the papilla. Finally, the nerve itself is compressed by disturbed circulation in its own lymphatics; with the latter begins the edema of the nerve fibers, which in turn increases the compression of the vessels. Such disturbances in the blood and lymphatic circulation when continued for a certain time lead to inflammatory manifestations in the nerve, its sheaths and papilla.

The Action of Heat Upon Cow's Milk as an Infant Food.

Dessau (Pediatrics, February 1, 1902) says that heat causes new combinations to occur in milk which are detrimental to certain nutritious elements. The calcium salts are disturbed in their combinations with citric and phosphoric acids so that they are precipitated, and this destroys the anti-scorbutic property of the milk. The fats are partially decomposed and the globulins and nucleins are coagulated.

But the curds forming in the infant's stomach are much finer from heated milk than from raw milk. Heated milk is thus readily digested and assimilated. The tendency to constipation can be overcome by an extra amount of sugar. The milk should not be heated to the boiling point. A correct degree of heat must be used, and when used the advantages outweigh the disadvantages.

Diagnostic Value of Hemaglobin in Syphilis.

Andrew McPhail, (Montreal Medical Journal), reaffirms the following conclusions:

1. Syphilis, if untreated, has the power of producing a diminution of the hæmoglobin, according to the severity of the attack.

2. If a patient, the subject of syphilis, absorbs a fairly large quantity of mercury in one dose, the hæmoglobin will sink rapidly and considerably.

3. This decrease will be restored sooner or later if treatment by mercury is continued; the hæmoglobin will ultimately reach a much higher level than that observed before the treatment.

4. When the amount of hæmoglobin ceases to sink in repeating the drug, syphilitic manifestations will be observed to remit.

5. This rapid sinking is a specific phenomenon not to be observed in healthy persons or in other diseases.

6. The reaction may be observed as soon as the glands remote from the point of in-

oculation are affected, and in all subsequent stages of the disease. The reaction disappears whenever the signs of syphilis show remission, but will appear during every relapse of the malady.

Tumors of the Central Nervous System.

Dr. Collins, of New York (Medical Record, Feb. 15, 1902) states that these tumors still constitute a forlorn chapter in therapeutics, medical treatment being of little value except in the gummatous variety, and it is generally agreed that but about 5% are amenable to surgical treatment. Surgical treatment of brain tumors has not been so successful as surgeons a few years ago hoped it would be, owing to several reasons; their frequent malignancy, their extension usually by infiltration, their frequent location at inaccessible points, and the frequent inability to locate them definitely. Unfortunately, in not a few cases it is found at necropsy that focal symptoms are entirely misleading. There are vast regions of the brain that have no special or definitely allotted function, and it is the trend of one school of psychologists to deny that different parts of the brain are concerned uniquely with different functions. He asserts that this school is steadily gaining adherents. Careful study of tumors in the socalled silent regions is bound to give most valuable aid in settling some of the questions that are baffling the localizationists and the psychologists. The chief part of this paper is devoted to the study of five of his cases, each of which is very instructive. 1. Angiosarcoma of the pons; 2, syphiloma of the anterior pale of the left hemisphere; 3, sarcoma of the cerebellum in a child; 4, sarcoma of the right ventricle; and 5, osteosarcoma of long duration.

Local Treatment of Acne.

Burnside Foster (Northwestern Medical Journal): When comedones are present in large numbers, and the skin is thick aud grayish, with little suppuration, thorough scraping with a dull curet is of the greatest service. The skin should first be thoroughly disinfected and, after the operation, washed with very hot water and soap. Sulphur-camphor-balsam-of-Peru soap is one of the best. At home the patient may apply a mild sulphur cream or powdered sulphur during the night. If there is much suppuration the pustules should be opened with an acne knife under strict antiseptic precautions and their contents evacuated; squeezing without preliminary incision leaves a worse scar than when the knife is used. If there is much hyperkeratosis, and the patient's consent can be obtained, an ointment consisting of resorcin and zinc paste, equal parts, may be applied constantly to the skin for four days. At the end of this time the skin is washed with starchy water, and cold cream or glycerin jelly applied. The skin peels off in large flakes, bringing away the horny layer, and in a week the improvement is very marked. This treatment is of course temporarily disfiguring, and compels the patient to retire from view for ten days. A novel remedy suggested for cases with excessive oiliness is gasoline; it removes the fatty matters and diminishes the amonnt of secretion of the subaceous glands. Electricity may be used either to remove deep-seated papules by the introduction of the needle atttached to the negative pole, a weak current being passed for a few seconds, or in the form of surface galvanism, applied 15 minutes at a time, to stimulate cutaneous circulation in cases characterized by a thick and anemic skin.

Andrenalin Chlorid.

Booth [Albany Med. Journal] believes that this drug is one of the most valuable ever added to the list of laryngology or rhinology. When the solution of suprarenal capsule were first employed, the difficulty of preserving it added many failures from its decomposition. Dr. Jokichi Takamine isolated the active principle of the gland, which seems to possess all its virtue and does not mix with oils, and therefore it is excluded from the various petroleum preparations. When this drug is applied to the field of operation, considerable shrinkage of the tissue will be noticed, and if cocain is then applied the absorption is decidedly less, and the danger of intoxication is correspondingly decreased. As might be presumed, the hemorrhage during the operation is also decidedly less, but when the tissues regain their normal tone considerable bleeding is apt to follow, This can be obviated by packing the cavity with cotton soaked in a 1-10,000 solution; the best strength to apply before operating is from 1-3,000 to 1-5,000. If this solution is allowed to remain in contact with the tissues too long a slough is apt to follow. This evidently is due to the fact that the vessels are contracted too long and the vitality of the tissue is so reduced that it does not recover. In hydrorrhea a 1-10,000 solution will be found of value and also in singers the use of this strength solution in a downward spray in the larynx will allow the use of the voice in a very short time. Upon the heart its effects is quite marked, and if a few drops of a 1-10,000 solution are placed beneath the tongue of a person under an anesthetic rise of blood-pressure is soon observed. In some there seems to be an in-

tolerance, and the application to the nasal cavities will produce severe sneezing and burning in all the air cells adjoining, severe headache, and injection of the conjunctiva.

Retinal Lesions of Chronic Interstitial Nephritis.

Jackson (Medical News, Feb. 15, 1902,) sums them up as follows: 1. Alterations in the contour, size, and color of the retinal vessels; 2. Hemorrhages and the progressively changing exudates, which constitute steps in the removal of effused blood; 3. Retinal œdema; 4. Degenerative changes in the neural elements of the retina, and alterations in the layer of pigment epithelium; 5. Deposits of exudate, which perhaps have a significance somewhat different from that of the foregoing symptoms. The retinal lesions are closely associated with vascular changes. In the great majority of cases they appear just when the prolonged high vascular tension begins to be insufficient and elimination is failing. The association with vascular degeneration is more constant than association with albumin in the urine, casts of any form, or any other clinical evidence of renal disease. Whether the vascular changes cause the retinal lesions, or whether their connection is that both spring from a common cause, the retinal symptoms take from this close connection great importance. They throw light upon the condition of the central nervous system and also that of other organs of the body, They are most important both as a means of understanding the essential nature of this disease process, and as throwing light on the character and course of the individual case.

How to See Stomach Curvatures with the Naked Eye.

Knapp (New York Medical Journal, Feb. 15, 1902,) suggests the following method: The patient lies on a table in the usual dorsal position, with abdomen bare. The examiner stands at the side or at the shoulder of the patient, brings his eyes on the same level with the prominence of the patient's abdomen, and watches abdominal respiration with one eye or both. The patient breathes in a normal way, and the examiner follows certain lines which he sees move up and down with the respiration on the abdominal surface. The curvatures of the stomach will be seen distinctly as very fine lines moving under the skin with the respiration. After watching these lines for a few respirations, the observer notes where they stop each time, and marks the lines with ink. These are the lines produced by the curvatures. To corroborate, percussion is made in the following way: The closely apposed index and middle fingers of the hand are placed on the abdomen, so that the ink line, representing the curvature, is between the two. Now the examiner percusses, very gently, over each finger, without separating them and without removing them from the place. If the line marked on the abdomen exactly corresponds with the curvature, the difference in the percussion resonance over each finger will be heard. As very gentle percussion is required, the use of the stethoscope will be found of material value. For that purpose the stethoscope does not necessarily have to be placed anywhere on the abdomen. When there is a doubt as to the identity of the organ over which a percussion is made one must resort to inflation of the colon.

Diet in Diabetes Mellitus.

Dr. John V. Shoemaker (The Medical Bulletin) suggests that patients who are suffering with diabetes mellitus should be kept on a diet of skimmed milk for several weeks. Then the bill of fare is enlarged but foods having much starch and sugar are avoided. The bill of fare includes meats except liver; soups made with flour, fish, shell-fish, gluten bread, lettuce, spinach, cauliflower, Brussels sprouts, onions, tea and coffee without sugar, and koumiss. Saccharine may be used to sweeten tea and coffee. Malt liquors and sweet wines must be avoided, but acid wines, whiskey and brandy are less injurious. Vichy, Appollinaris, etc., may be taken. Tart fruits, unsweetened, may be added to the bill of fare.

Mechanical versus Suture Methods of Intestinal Approximation.

Frank (Ann. of Surg.) believes that with no other method of intestinal approximation can be obtained all the desired conditions in such ingenious combination as with the mechanical devices of the Murphy type. The chief advantages of such devices are: 1, simplicity of application; 2, saving time; 3, uniform coaptation of the peritoneal surfaces of the entire circumference of the approximated ends; 4, prevention of bleeding at the seat of approximation: 5, a cicatrix that will not contract to a serious degree; 6, exact juxtaposition of histological structures; 7, minimizing of risk of infection, as no needle is used to carry infection from the intestinal canal into the peritoneal cavity. There is also a reduction of mortality. According to statistics with mechanical methods of the Murphy type, the mortality in gastro-enterostomy for nonmalignant disease ranges from 2-5 to 14 per cent., in end-to-end union from 10.5 to 16 per cent.; and

is only as high as 33 per cent. in malignant cases. With the suture methods the mortality ranges in gasto-enterostomy from 24.5 to 76.47 per cent., and in end-to-end approximation from 58 to 100 per cent.

Moveable Kidney, with Special Reference to Its Consequences and Its Etiology.

Francis S. Watson (Indian Medical Record, Jan. 15, 1902,) holds that moveable kidney is by no means the harmless condition it has been said to be by many writers. He admits that moveable kidney is often present in neurasthenic women, but believes that in such cases it is often the direct cause, and not merely an accompaniment, of the neurasthenia. And further, he says, moveable kidney sometimes results in much more serious consequences than the production of neurasthenic symptoms. These are 1, hydro and pyonephrosis; 2. fixation in an abnormal position of a previously movable kidney; and 3, in a few rare instances, gangrene of the organ produced by the occlusion of its blood-vessels brought about by the rotation of the kidney upon its horizontal axis. He does not accept the list of causes (relaxation of abdominal walls, sudden wasting of the perirenal fat tissue, increase in size and weight of the kidney, downward pressure by an enlarged liver, or a pleuritic effusion, or tight lacing) commonly given by writers on the subject, but says that the ptosis is due to the destruction of certain structures normally holding the organ in position. These are the structures which form the attachments between the posterior and upper aspect of the tunica propria, and the fascia covering the lumbar muscles, and the peritoneum covering the diaphragm, respectively, aided by the less essential ones connecting the anterior surface with the peritoneum overlaying it.

The Pathology and Etiology of Prostatic Hypertrophy: Suprapubic Drainage and Myomectomy Considered as Methods of Treatment and Cure.

Augustus Charles Bernays (Medical News, Feb. 22, 1902,) says that prostatic hypertrophy, when microscopically examined, is found to consist of an increase of the non-striated muscle cells and connective tissue which lie between the tubular glands. These latter are displaced by the hypertrophic muscle fibers, and in extreme cases are nearly absent. The etiology of this affection has not yet been cleared up. In old cases, paliative measures are sometimes preferable to radical ones. Drainage of the bladder by the suprapubic route is preferable to perineal drainage in cases of cystitis, because this method gives the sphincter apparatus more complete rest than the perineal buttonhole or fistula. In recent cases, when the patient's health has not been injured by the complications common to this affection, the dangers of myomectomy or perineal prostatectomy are minimal, and in these cases a radical and functionally satisfactory result can be achieved by myomectomy. Operation must be regarded as a palliative measure intended to enable the patient to evacuate his bladder more completely than before. It will probably fall into disuse as the technic of myomectomy or perineal prostatectomy is perfected. Bottini's operation is dangerous. Myomectomy done through a median perineal incision is the operation which promises the best results and is the operation of choice. It is applicable to the greatest number of cases in which permanent cure may be expected, the kidneys being physiologically sufficient and unimpaired. The perineal fistula will always close spontaneously after the perineal drainage is discontinued, and if enough mucosa has been left there will be no stricture.

The Treatment of Lateral Curvature.

Young (Philadelphia Medical Journal. Feb. 22, 1902) states that any form of lateral curvature which may be benefitted at all by treatment, is best treated by light gymnastic exercises. The introductory part consists of light exercises taken in the horizontal position lying on a table. Special attention is given to breathing exercises. Weak muscles are developed by exercises adapted to them individually or collectively. The weak muscles are slightly over-developed by first finding the best voluntary position which can be assumed by the patient and then taking all the exercises in that position. Special attention should be paid to the development of the lower extremities. The greatest care should be observed and the patient ought always to be under the observation of the surgeon. The treatment should be given daily for periods of from three to six months. Those exercises which are found to be the most useful should be used, supplementing them from time to time with others. He approves of daily massage after the exercises. This should be of several different movements intended to improve the weaker muscles, to divert the blood from the spinal column, and to rest the patient after exercises. The exercises should be taken daily except Sundays and during the menstrual period. The exercises may be modified during the summer. The exercises may be discontinued at this season. These patients should not go to school, nor should they go out in society, as these duties interfere with the proper amount of rest. The morning of each

day should be devoted to treatment, and at least two hours in the afternoon should be spent in the prone position. Late hours should be forbidden. All games which employ one side of the body more than the other are also to be forbidden.

Treatment of Chronic Eczema.

Eddowes (British Medical Journal, Feb. 15, 1902) believes that as our knowledge of bacteriology and pathological processes increases, the term eczema will be less often used or will be more qualified. The object of all treatment is to bring back the diseased condition to a healthy and physiological state and keep it there. Special indications must be met, in each case. If injury is being done by scratching or friction of any sort, the part must be soothed and protected or treatment may be almost useless. Gentle pinching or pressing will often afford the relief of scratching without injury. Eczema may have many associated causes and complications. General treatment is essential in many cases. Gray powder, calomel, decoction of aloes, citrates and carbonates, iron, quinine and strychnine, and sometimes colchicum will meet almost all needs for internal medication. The regulation of diet is sometimes most necessary. In the case of children, meat juice or blood gravy, for sucklings, and cod liver oil or malt extract for older ones, will often do wonders, as will also now and then change of air and the administration of thyroid extract. For adults, sometimes a change of occupation is sometimes necessary, but this is rare.

The Early Diagnosis and Treatment of Pulmonary Tuberculosis.

Stubbert (Medical News, March 8,1902) believes that climate influences, hygiene, and diet must form the basis of all treatment, but he does not believe that climate alone will cure many cases of even incipient tuberculosis. There should be a certain amount of medical supervision and treatment of all patients. The upper air passages should always be examined and treated locally when necessary. High altitude, good diet, and out door life will remedy anemia to a certain extent, but the administration of iron and arsenic,combined with static elictricity, will cause more certain and rapid improvement. If expectoration is present, especially with mixed infection. hot air inhalations, as well as cold sprays from the multi commuter, are valuable as auxiliary therapeutics, and serve also in a minor degree, as lung gymnastics. Hydrotherapy is also a powerful factor in placing the victim of incipient tuberculosis in a condition to overcome the disease. The author says that diet in the treatment of tuberculosis is a much abused and poorly understood term. In 90 per cent. of incipient cases nothing is better than three substantial meals a day. Patients with chronic gastritis and dilated stomachs may be relieved by siphon irrigation of the stomach three times a week, and, if dilation is present, Einhorn's electrode may be introduced and faradization practiced. Brilliant results generally follow, not only as to digestion, but indirectly affecting the tuberculous disease.

Tuberculosis of the Upper Air Passages.

Rosenberg (Journal of Tuberculosis): In 52 cases tubercle bacilli were found 24 times in the secretion of the nasopharynx; 17 patients showed even ulcerations. From the examination of 81 nontubercular patients, among whom he found tubercle bacilli nine times and ulcerations once, he concludes that the nasopharynx is sometimes the site of primary infection. Tuberculosis of the pharynx is, as a rule, secondary; but may be primary, in which case it is due to feeding. Of all the organs of the upper respiratory tract, the larynx is the most frequently attacked by this disease. Four forms are to be distinguished which may coexist—infiltration, ulcerations, perichondritis and tumors. The treatment is both general and local. Under general treatment are included all those hygienic and dietetic measures considered in the therapy of pulmonary tuberculosis. Ocean voyages are valuable, or a resort should be selected that exhibits a certain humidity and is free from dust, creasote and similar substances, as guaiacol carbonate are indicated. Further are indicated stomachics. for severe paroxysms of coughing, narcot, ics; and as a cardiac stimulant, alcohol. He uses inhalations of menthol and intralaryngeal injections of a 16% to 20% oily solutions of the same; further, a 3% to 4% solution of boracic acid; and as an anesthetic or analgesic, cocain, potassium bromid, antipyrin, morphin and menthol. Powder, used as insufflations are iodoform, iodols dermatol europhen, pyoktanin; in ulcerations, orthoform.

Ulcer of the Stomach.

Box (British Medical Journal, Feb. 8th, 1902,) says that this disease is due to croorganismal infection of the lymph-nodes of the stomach wall. Secondary perforation may be brought about by overdistension of the stomach by food, by taking copious draughts of fluid which weigh down the organ or by some unwonted muscular exertion when the stomach is so distended. An ulcer which has perforated in this manner

and not by the active spread of an inflammatory process need not present an area of surrounding edema at all. There are many gastric ulcers that are never indicated by the occurrence of hemorrhage in connection with other gastric symptoms. Indeed beyond vague dyspeptic pains in the first obtrusive symptoms of the condition are often those of perforation. In many cases of duodenal ulcer melena is never noticed; and sometimes, when it does occur, unassociated with hematemesis, the ulcer proves to be in the stomach. On the other hand, there are cases in which hematemesis is associated with gastric pain and with vomiting in which there is no gastric ulcer present. This combination may be seen in cases of uremia, in cases of the gastric crisis of locomotor ataxia, in cases of hysteria and in connection with mitral disease. Gastric ulcer is not the only cause of constant vomiting in young people; the vomiting of early pregnancy, the vomiting of uremia,and the vomiting of cerebral tumor are well known examples of that symptom unassociated with gastric lesions. Any patient who presents this symptom should have the urine examined thoroughly for albumin and the casts. The vomited material should be examined by the physician and the eye-grounds should be examined with the ophthalmoscope. It has been stated that in cases of gastric ulcer vomiting ceases after perforation. This statement, however, is incorrect. After perforation of a gastric ulcer through the anterior wall of the stomach the following signs may be obtained at the base of the left lung: considerable restriction of the respiratory movements; diminution or cessation of the action of the diaphragm with immobility of the upper left quadrant of the abdomen; more or less localized pain and tenderness in the auxiliary region and sometimes actual edema and bulging; dullness on percussion, which may extend higher than the angle of a scapula; diminution of tactile fremitus with more or less suppression of breath sounds, and in some cases the appearance of distinct bronchial breathing; friction sounds which may have a respiratory or a cardiac rhythm; and a certain amount of upward displacement of the apex beat. The collection of pus that follow perforation of an ulcer through the anterior wall of the stomach are usually localized round the anterior and external surfaces of the spleen and between the left lobe of the liver and the diaphragm. They are walled off from the peritoneal cavity by adhesions between the anterior abdominal wall and the great omentum or stomach. These localizations are aided by the costocolic fold, which extends from the tenth and eleventh rib to the splenic flexure of the colon. The pleura may become infected secondarily from such a collection. In the treatment of these conditions the sixth or seventh ribs should be resected in the left axilla. If the pleura is found to be free from involvement it can be accurately stitched off before the abdominal cavity is opened. The exploring needle should not be used. In some cases the pus may collect in the pelvis, to which it extends along the ascending or the descending portions of the colon. A general infection of the lesser sac of the peritoneum is uncommon, because of the adhesions which form between the posterior wall of the stomach and the adjacent structures in cases of ulcer on the posterior wall. In cases of suspected ulcer an examination of the stomach contents for the presence of excess of free hydrochloric acid should always be made. If the first examination is negative, a second one should be made before concluding that the phenomenon is absent. Every patient in whom gastric ulcer is diagnosed should be looked upon as seriously ill.

Experimental and Clinical Research Into Cocain and Eucain.

Crile (Journal of the American Medical Association, Feb. 22, 1902,) states that cocain or eucain when injected into a nerve trunk produces a "block" or a condition of the nerve which prevents the passage of afferent or efferent impulses. The conductivity is as completely interrupted as if the nerve were divided. This "physiological block" may also be produced when one of the above named substances is injected underneath the nerve sheath. The effect of cocain or eucain upon the nerve structures —rest of functional activity—is the same. The general action of cocain and eucain is also practically identical. Injection of cocain into the venous system is followed by a temporary increase in the blood pressure. In toxic doses the blood pressure rapidly sinks. He cites the clinical application of the experimental evidence noting the effect of an injection of cocain into the nerve trunks for operations on the extremities; for amputations of the leg; amputation at the shoulder joint, and laryngotomy.

The histories of a number of cases are given. The following clinical summary is given: "In the clinical use of cocain and eucain particular attention is called to a most important feature. viz., that shock it almost wholly avoided, because all afferens impulses are blocked. It is not known that afferent impulses set up by injury or operation are the cause of shock. These impulses are but slightly modified by general anesthesia. The afferent impulse, consti-

tuting pain, is abolished by general anesthesia, but those affecting the vasomotor. the respiratory,and the cardiac mechanisms are not controlled; but cocain or eucain absolutely blocks their passage, making a physiologic amputation of the part. These anesthetics wholly prevent reflex inhibition but the principal causes of collapse in certain operations and injuries, e.g.,operation on the larynx and pharynx. Given hypodermically, the experimental evidence shows that they diminish shock in operation on the splauchnic area and absolutely alter this area in the processes of operation or exposure, as abundantly proved by the series of double experiments. I have had but two opportunities of testing this clinically, both in operations for gunshot wounds of the intestines, and in each the experimental evidence seemed to be corroborated. Comparative results required such a large number of observations that I prefer for the present to offer no more than the clinical suggestion.

Recent Conclusions Concerning Appendicitis.

Davis (Western Medical Review) advises the following in the various forms of appendicitis:

Operation in chronic appendicitis, in one or more severe attacks, or two or more light attacks.

Immediate operation is not imperative in simple cases of appendiceal colic without severe pain, no vomiting, no fever, and no rise of pulse-rate. After the attack is over, the appendix should be removed at once.

Immediate operation should be undertaken in acute attacks seen during the first forty-eight hours, accompanied by persistent vomiting, severe pain, and rigidity of the right rectus abdominis. This operation is advised whether or not there be much fever or rise of pulse-rate.

In the cases of patients seen after the third day of the attack, (1) operation may be postponed until the acute symptoms fully subside, if there is distinct convalescence; (2) immediate operation should be done if there is not convalescence and there is yet amelioration of all the acute symptoms; the operation may be delayed if the patient can be closely watched, and is in suitable surroundings for an immediate operation should there be an exacerbation of the symptoms; (3) operations done at once on patients becoming progressively worse, but not yet moribund or nearly so, will save more patients than can be saved by any other means; (4) moribund patients should be allowed to die without operation.

Mastitis in Typhoid Fever.

McCrae (Johns Hopkins Bulletin) says that mastitis is a rare complication of typhoid fever, and usually occurs late in the attack. It occurs in both sexes, and is apparently not associated with a functional gland. Both breasts are involved in about half the cases. Suppuration occurs in about half the cases and may be associated with the typhoid bacillus or staphylococcus. It is of no special moment in prognosis.

Mastoiditis.

Waterhouse (Edenburgh Medical Journal) states that in very acute inflammatory processes with a high temperature and pulse-rate, severe pain and constitutional disturbance, and swelling over the mastoid, everyone would advise that the mastoid should be opened. The cases where a difference of opinion may exist are those in which there is only a moderate discharge of pus, and the symptoms are not very obtrusive. Dr. Waterhouse recommends operation when chronic otorrhœa is associated with (1) continuous or frequent pain in ear, mastoid, or side of head, particularly if they are aggravated by pressure on the mastoid; 2, total loss of hearing with frequent attacks of giddiness, suggesting involvement of the internal ear; 3, caries or neurosis; 4, polypi and granulations which recur and resist careful treatment with biniodide and spirit drops; 5, caseous deposits and cholesteatomata; 6, facial paralysis; 7, distinct symptoms of intracranial abscess, meningitis, or sinus thrombosis. He states that manifestly thorough exploration of the mastoid must be carried out before, or at the same time as, the operation for any intracranial complication of purulent otorrhœ. To leave the paths by which the organisms enter uneradicated will render recovery doubtful, and expose the patient to fresh attacks.

The "Poultice Method" of Healing Cutaneous and Subcutaneous Abscess Cavities.

M. B. Hutchins (N. Y. Medical Journal, Feb. 22, 1902) usually applies over the opening of the abscess a poultice of flax seed meal, made with three-per-cent. carbolic instead of plain water. A thin cloth or gauze layer can be put next to the opening. The three-per-cent. of carbolic acid really becomes about one per cent. in the mixture, and is hence very weakly germicidal. Absolutely nothing is put in the abscess cavity, it simply being emptied of pus by pressure—through a small opening—if not already open. The poultices are changed as often as cleanliness or their getting dry requires. The wet poultice affords constant drainage and absorbs the discharge. The moisture in the poultice and the con-

stant flow of discharge prevent premature union of the mouth of the cavity. There is no painful packing in of gauze strips and retardation of healing by the presence of the foreign substance—gauze. There is no reinfection in dressing and there is a saving of from 75 to 80 per cent. in time of healing. When incision is necessary it may be small, instead of "free" and long. The pressure of the poultice aids in the coaptation of the walls, and the rapid removal of discharge clears the way for natural reparative processes. The successful use of rubber adhesive plaster on some occasions shows the effect of simple warmth and moisture in facilitating healing from the bottom.

Gastric Toxins.

During a recent discussion at the Societe de Therapeutique upon toxi-alimenatry epilepsy, Albert Robin, according to the Indian Medical Record, cast doubt upon the importance and even the existence of gastric toxins, and attributed the so-called toxic symptoms of dyspeptics to gastric and intestinal reflexes. E. Cassaet (Arch. Gen. de Med). reviews the whole question. He defines gastric toxins as unknown poisons which take their origin in the stomach and intestines from incomplete or abnormal transformation of alimentray substances, and which are capable of causing severe symptoms, recurring or more or less constant. Even milk may cause symptoms of poisoning in certain atonic dilated stomachs incapable of digesting it. The proofs of the activity of gastric toxins are both clinical and experimental. No one denies that the ingestion of food has occasionally an obvious relation of causality with certain symptoms, such as epileptiform attacks and delirium. The debated question is whether the food acts by irritation or by toxæmia. Cassaet states that the two occurrences have very distinct characteristics. Irritation symptoms occur rapidly soon after the food is taken. There is often a digestive aura, with intense cardialgia and activity. The symptoms disappear with the removal of the cause, as by vomiting. Toxæmic symptoms on the other hand, occur first towards the end of gastric digestion. There is a characteristic preparatory phase of inertia and somnolence. The organs of relation, the brain nerves and muscles are chiefly affected. Several illustrative cases recorded. Toxaemia is almost invariably associated with hyperchlorhydria. Certain previous alterations of the alimentary tract favour and explain the intoxication. Turning to experimental proofs, the nocivity of certain ferments—for example, pepsin and of peptones—has been proved by injection into animals. Certain aliments are poisonous to individuals. It is then rational to conclude that intermediate products between albuminoids and peptones are not inactive if absorbed. From the dilated stomachs of dyspeptics Brieger and others have, by means of extraction with alcohol, separated a body which killed frogs in a few minutes with paralysis, anæsthesia, fibrillary contraction. Robin contends that an artificial synthetic body due to the treatment by alcohol causes the convulsive symptoms seen in experimental work. But Cassaet, from the contents of a dilated stomach, has obtained not only a "convulsive," but a "comatose" body; and Benech has obtained the "convulsive" body without using alcohol by allowing the stomach contents to stand for some time. To complete the experimental evidence, it remains to be proved, however, that the rapidity of absorption is increased in dyspeptics, and so intermediate or abnormal bodies gain the general circulation, and that such bodies are absorbed without undergoing the elaboration neceseary to render them inert.

The Treatment of Malignant Growth by the X-Ray.

William Morton (Medical Record, March 8, 1902) states that the cure of superficial epithelioma by means of the x-rays is established. He has gone further and treated deep-seated malignant growths by the same agent. Sarcoma of the humerus, cancer of the breast, malignant growth of the sternum, sarcoma of the bones of the head, epithelioma of the face, and cancerous tumor of the stomach are all under course of treatment in the author's bands, and while sufficient time has not elapsed to effect a cure he considers the effect in every case sufficiently promising to warrant a report thereon. Dr. Morton reports 8 cases, all of which promise a cure. He says that carcinomatous new growths, not yet broken down and still covered by healthy skin, may be dissipated totally, as has been proved in 2 of his cases. The uncertainties and dangers are: 1. The absence of a definite measure of the "dosage." 2. The possibility of a "burn" or of gangrene. 3. The difficulty of ascertaining when the "danger point" of administration as regards burning and gangrene is reached. Conclusions: What is accomplished by the x-ray? 1. Relief from excruciating pain and constant suffering, often immediately. 2. Reduction in the size of the newgrowth. 3. Establishment of the process of repair. 4. Removal of the odor, if present. 5. Cessation of the discharge. 6. Softening and disappearance of lymphatic nodes. 7. Dis-

appearance even of lymphatic enlargements not directly submitted to treatment and often quite distant. 8. Removal of the cachetic color and appearance of the skin. 9. Improvement in the general health. 10. Cure, up to date, of a certain number of malignant growths.

The Malnutrition of Tuberculosis.

F. M. Crandell, (Arch. of Pediatrics, vol. 19, No. 1) says:

1. Wasting, anemia, and other evidences of malnutrition are constant accompaniments of tuberculosis in children.

2. These symptoms may occur in infants long before local disease can be detected and occasionally no local signs whatever are manifest before death.

3. In infants, tuberculosis shows a special tendency to be disseminated or to conceal itself in the deep tissues, as the lymph nodes. The disease may then run a course identical with simple marasmus.

4. In some cases a period of anemia and wasting is followed by a stage of irregular fever, after which local lesions appear, usually in the lungs.

5. In other cases tuberculosis in children begins with well-marked local manifestations, particularly pneumonia. In these, evidences of malnutrition, appear promptly and are usually progressive.

6. The anemia of tuberculosis, whether it appears before or after the occurrence of other symptoms, is a usually simple anemia and presents nothing characteristic.

7. A diagnosis of tuberculosis cannot be made alone from the character of the anemia or the malnutrition. However, persistent and increasing malnutrition in a child without discoverable cause is always suggestive of tuberculosis.

8. Anemia in adolescents should receive prompt and active attention, for it vastly increases the danger of tubercular invasion, which is particularly common at that period of life.

Pulmonary Regurgitation.

Cautley. (London Lancet, Jan. 25, 1902) reports a case which occurred in a girl, 15 years of age, who was admitted into the Metropolitan Hospital on May 7, 1901, and discharged on May 23; readmitted on August 13, and death occurred on October 10, 1901. This patient had had rheumatic fever and diphtheria. When admitted to the hospital on the first occasion the patient complained of headache, and vomiting and general debility. There was no edema of the extremities or clubbing of the fingers. The impulse of the heart could be localized. At the aortic area, the heart sounds were clear and ringing. At the pulmonary area, the first sound appeared clean and was followed by a diastolic murmur which was transmitted downwards and could be heard in the third and fourth left intercostal spaces close to the sternum. It appeared loudest in the fourth interspace. At the apex there was a systolic murmur which was conducted outward and was audible in the axilla and faintly behind. The liver was not enlarged; the urine appeared normal. When readmitted to the hospital she complained of pain in the right knee joint and of minute red spots on the legs. Her temperature was 101.6 deg. The pulse rate was 108. The cardiac impulse was found in the sixth interspace in the nipple line. To the right of the sternum from two to three inches there was diffused pulsation. Epigastric pulsation was also marked. The first sound at the apex had a rumbling character. At the aortic area and in the second left intercostal space both sounds were clear and ringing. The diastolic murmur increased in intensity on expiration and when in the upright posture. A short while after moist rales developed in the bases of both lungs, No cough was present. The diastolic murmur became louder and was heard at the base and down both sides of the sternum. The temperature was subfebrile until the twenty-sixth, when it rose to 103.4 deg. F. The fever disappeared again on September 5, at which time the patient vomited four pints of blood which caused partial collapse. On October 7, the heart was more dilated, and at the apex there was a systolic and a diastolic murmur and a marked diastolic thrill could be felt over the left border of the sternum. In the pulmonic area the diastolic murmus was very much louder. Death occurred on October 10, 1901, after vomiting a pint of blood. The post-mortem examination revealed a number of infarcts in the right and left lung. The heart weighed 11 ozs. The walls of the right auricles and right ventricle were much hypertrophied. The pulmonary valve was thickened and puckered and on two of the valve segmentes there were large warty vegetations. The right ventricle was dilated and beginning red atrophy of the liver was present. He states that the case presented many difficulties from a clinical point of view and it was not determined whether this case was one of rheumatic origin or one of infective endocarditis.

How Far Should the Generalist Invade the Special Field in Gynaecology.

Dr. C. Lester Hall, (The Kansas City Medical Index-Lancet), states that he must confess that he felt unable to dispose of this subject, as any opinions given, would only

be, at the best, one man's idea. To answer the interrogatory presented in the title the doctor said that it depended entirely upon the ability of the generalist to do whatever he undertakes in a professional line. In this free world of ours, and especially in free America, where every man is his own master, he could not see why limitations should be placed upon any man's field of labor, provided he possessed the ability to do his work creditably. It is said of Jona than Hutchins that he is perhaps the best all-around physician and surgeon in the world; that he does everything and anything with a thoroughness and skill that would do credit to the most dextrous specialist. It is safe to say, howeveh, that very few men possess this marked ability. I do not wish to discredit the claims of a specialists in any department of medicine, but do say that he cannot be a good and successful gynæcologist unless he is first a well rounded physician. I am willing to concede that the excellence of the work of the gynæcologist is due to his claim of superiority in his line. but the doctor said that that was no reason why a generalist should not attempt to do any gynæcological work.

It may not be inappropriate in this commercial age to say that the multitude of specialists certainly very materially curtails the work of tha generalist, notwithstanding there may be a demand for specialist by the public. In this day and generation, where it is possible for a young man of ability and ambition to acquire a broad medical education, I feel that in fact there is no reason why he should not be permitted to select any one or all of the departments of medicine for his field of labor. The whole question may be settled without controversy. If the generalist has ability, is clean and well versed in technique of gynæcology, he should be permitted to take charge of these cases as they present themselves, without censure.

Heart Disease in Pregnancy.

Webster (Medicine, Feb , 1902) states there are a number or factors. each of which must be individually appreciated, which serve to invalidate the heart in pregnancy. The enormous increase in the vascular area and in the total quantity of blood imposes an additional mechanical strain on that organ. The deterioration in the blood, enemia, etc., lead to malnutrition of its musculature and to a certain degree of paresis. The distention of the abdomen limits the oxygenating power of the lungs, impedes their auxiliary action in circulation, and blocks the pulmonary circulation. All cardiac cases, therefore, suffer to a greater or less degree during pregnancy. If hypertrophy of the heart be sufficient, the disturbances are slight, manifesting themselves only as palpitation, cough, dyspnea, and slight edema. In the cases which fail to compensate properly, the most serious symptoms may supervene. The woman may then succumb to heart disease during pregnancy, or abortion may occur. If the case goes on to labor, this may also prove fatal to the woman. The treatment of all cases of heart disease should be prophylactic in the early stages. If abortion threaten, or if signs of beginning cardiac insufficiency appears, but, especially, if these two conditions occur together, the physician should always be ready to end the pregnancy in the interest of the mother. The labor, whether premature or at full term, demands the most careful management. If the patient stand it well, she may be permitted to go through the first stage without interference. If signs of heart failure appear, she is to be chloroformed, and the cervix dilated with Barnes' bags or manually. The second stage presents similar indications. The woman is to be assisted, if necessary, by the forceps. The best stimulant during this stage is nitrite of amyl, or nitroglycerin, which neutralizes the increasing strain on the heart, due to the additional blood thrown out of the retracting uterus, by diverting it into the dilated abdominal vessels. The third stage is that most to be feared, Strangely enough, there is one set of observers which attribute the danger to anemia of the heart, while others hold that the patient dies from overdistention. "The whole vascular area of the body has been greatly reduced by the contraction of the uterus; the extra strain on the right side of the heart may be too much for it;" overdistention and paralysis supervene. The indication is plain. The third stage is to be prolonged, at the cost of considerable loss of blood, in order to give the cardiovascular mechanism a chance to adapt itself to the altered conditions. The placenta is gradually separated by the fingers, and uterine contraction should be stimulated only if the loss of blood becomes extreme. During the puerperium, the treatment is limited to careful nursing, and symptomatic treatment.

The Treatment of Chronic Malarial Fever by Subcutaneous Injections of Quinine Bihydrobromate.

Ferguson (British Medical Journal, Feb., 22,1902) reports the case of a military officer who was suffering from chronic malarial fever of tertian type. He was much emaciated and was getting steadily weaker.

Quinine, of which he had taken much by the mouth, moderated, but did not remove the fever, whilst it induced much sickness, which added to the debility of the patient. Quinine was tried by the rectum and by inunction, but without success, and iodine and arsenic were equally unavailing. The condition of the patient having become very serious, the author injected 2 gr. of quinine sulphate, dissolved by the aid of a minimum of tartaric acid, under the skin of his forearm. Decided improvement followed and, accordingly, the injection was repeated. It was distinctly painful, however, and the arm swelled and became tender. Accordingly, a series of experiments with different salts of quinine was begun and finally the bior acid hydrobromate of quinine was found to dissolve readily in 6 parts of pure warm water. After 6 injections of this salt the patient made a rapid and perfect recovery. This method of treating chronic malaria has been used in nearly 100 cases: in none of which tetanus or ulceration has been seen. The treatment is very efficacious and it will often cure malarial joints and malarial rheumatism. It is not very painful if the bihydrobromate salt is used. This salt is perfectly stable and makes a solution (1 in 6) that is only faintly acid. If the operation is done with care and with antiseptic precautions, there is no danger of tetanus. Three grains of quinine bihydrobromate disolved in 20 minims of pure warm water are injected subcutaneously. It should first be injected under the skin of the upper arm, then under that of the thighs, then under the skin of the abdomen, at the top of the chest or between the scapulæ. Six injections on alternate days are usually required in a serious case.

Diabetic Coma: Symptoms, Pathology and Treatment.

A. Mayer (Medical Record, March 8, 1902) discusses the various hypotheses which have been advanced appertaining to this condition. Only two of these seem to be tenable; (a) that of acidosis or acid intoxication, first described by Stadelmann and verified by a number of others; (b) that of a specific toxemia as taught by Klemperer and von Noorden and their followers. He calls attention to the fact that the enforced method of dieting in diabetes has much to do with the acidosis present. The author mentions that few patients can stand the exclusion of carbohydrates in the diet for any great length of time without gastric disturbances resulting. The proteids too favor by their disintegration the production of toxins and he does not believe that a rigid diet of fats and proteids should be continued. Lactose is better borne in severe cases than any other form of carbo-hydrates. The condition of the whole digestive apparatus must be carefully watched and dyspeptic disturbances especially avoided. For the avoidance of the impending coma, large doses of the alkalies, especially the bicarbonate of soda, are especially indicated. Enormous quantities must be injected at the same time giving as much by the other channels as the patient will stand. He speaks favorably of his experience with urotropin, basing the rationale of this treatment on thus introducing into the system a sufficient quantity of ammonia to unite with the various acids found in the condition of acidosis, so that by their neutralization the acid intoxication would be reduced, the disintegration of proteids prevented.

Lumbar Puncture in Chorea.

Jemma (British Medical Journal, Jan. 25) recommends the use of this treatment in severe and intractable cases of chorea. He reports two cases, implicating speech and deglutition, with movements so severe and incessant that sleep was impossible. In the first patient, aged ten years, lumbar puncture, with removal of 20 cubic centimetres of cerebro-spinal fluid, was followed by an immediate improvement lasting ten days. The symptoms then recurred with such severity as to require a second puncture, by which another rapid improvement was obtained, and by administration of arsenic in large doses a cure was effected. In the second patient, aged eleven years, puncture with withdrawal of 25 cubic centimetres of fluid caused almost immediate relief. Arsenic was begun at once, and though after seven days there was some increase in the symptoms, yet cure was effected without a second puncture.

The Cause of Diffuse Peritonitis Complicating Appendicitis and its Prevention.

Ochsner (American Journal of Surgery and Gynecology) concludes this subject as follows: 1. Peristaltic motion of the small intestines is the chief means of carrying the infection from the perforated or gangrenous appendix to the other portions of the peritoneum, changing a circumscribed into a general peritonitis: 2, this can be prevented by prohibiting the use of every kind of food and cathartics by the mouth, and by employing gastric lavage in every case in which there are remnants of food in the stomach or in the intestines above the ileocecal valve, as indicated by the presence of nausea, vomiting or meteorism; 3, the patient can be supported by the use of con-

centrated predigested food administered as enemata not oftener than once in four hours, and not in larger quantities than four ounces at a time; 4, this form of treatment, when instituted early, will change the most violent and dangerous form of acute perforative or gangrenous appendicitis into a comparatively mild and harmless form; 5, cases of perforative or gangrenous appendicitis with beginning general peritonitis can usually be carried through the acute attacks safely by this method; 6, in all cases of this class gastric lavage should be practiced in order to prevent the absorption of material from the alimentary canal; 7, in all cases of doubtful diagnosis this form of treatment should always be employed.

Joint Conditions.

Swan (Medical Press & Circular, Jan. 29, 1902) is against temporizing with tuberculosis of the joints and advocates prompt operation.

He states that the patella in young subjects is usually rather easily divided with a knife, when the whole of the interior of the joint comes widely into view. The synovial membrane is usually found congested and its branches edematous. Swan irrigates the joint for a considerable time with saline solution, removes every particle of loose, floculent material, dries off the surfaces, applies pure carbolic acid with a swab, and again irrigates very freely as before. The joint is then closed, the patella having been sutured with catgut and the skin with silkwormgut without drain. A plaster-of-Paris bandage is then applied over the dressing. In thirteen subsequent cases he has modified this procedure as follows, with equal success and without as much damage to the joint. The incision is made convex backward, reaching from the lower part of the inner edge of the ligamentum patellæ to a point (in the adult) about two inches above the base of the patella. After the bleeding has been arrested the joint is laid open. In closing the wound three layers require adaptation and suture. First, the synovial membrane, second, a muscle layer, consisting of aponeurosis below, and aponeurosis and muscle above.

The writer has not except in one or two cases used any drains, which he does not consider necessary if the wound is dried and rendered thoroughly aseptic before closing. Analogous to tuberculosis of the knee-joint is the same disease in the bursa, which lies beneath the ligamentum patellæ, where it makes an indolent swelling, slowly increasing and obliterating the hollows which naturally exist on either side of that ligament and occasionally reaching such great dimensions as to interfere with the use of the limb to a marked degree. The chances of the knee-joint itself becoming involved in the presence of such a bursitis are, of course, very great. The need of prompt operative interference in this condition is therefore manifest.

Multiple Arthritis in a Child Two Years Old Suffering from Gonorrheal Vulvovaginitis

Acker (Arch. Ped., Feb., 1902) describes a case of a colored female, two years old, when first seen had a profuse vaginal discharge which was found to contain numerous gonococci. It had existed for several days. A few days later the ankles and kness were found painful and swollen. Fever was present (100 to 103 degrees) for several days.

The child was treated with salicylate of soda (five grains every four hours) and hot douches of boric acid solution.

Under this treatment she improved in a few days. Then tincture of iron was substituted for the salicylate.

Only a small amount of serum was obtained from a swollen knee by aspiration. It contained many leucocytes, but no gonococci.

Surgery of the Skull and Contents.

J. S. McArdle (Med. Press and Circ., Dec. 25, 1901) says that even in modern practice contemptuous disregard is shown for the method adopted in the treatment of compound fractures of the skull. Death certainly results in most of the cases through septic meningitis. If in fracture of the long bones it be necessary to deal vigorously with the parts exposed to infection, it stands to reason that in managing fractures which open up the diploe and expose the dura the most vigorous precautions should always be taken, first, in cleansing the wound and, second, in securing free drainage. The more radical and thorough the surgical procedure adopted the better will be the result. In injuries of the skull in which infection is absent but in which there is great intracranial tension, in the latter may of itself do great damage to the brain if continued too long. There ought to be no hesitation as to the method of treatment, which ought to be the same here as elsewhere in the body. In cases of fever many patients may pass into a state of coma from intracranial pressure alone after the general tissues of the body have practically overcome the infecting germs. Why should there be in such cases any hesitation about relieving the brain and spinal cord of the products of microbic action? In syphilitic, alcoholic and other diseases which cause intracranial

tension the brain should be relieved surgically rather than medically. Drainage when necessary must be free. Many patients seem hopeless on the table, but when so placed that drainage is perfect they soon recover. In washing the field of operation such fluids as carbolic acid and bichloride of mercury must be avoided.

Surgery at Johns Hopkins.

Burnham, (Southern California Practitioner), in some interesting observations in Johns Hopkins, speaking of surgery there, says that Dr. Halsted and his assistants are very deliberate operators. A herniotomy that, in New York, would be performed in twenty minute, Dr. Halsted would take sixty or more for, one reason being the great care to prevent loss of blood. He says that the average time of etherization in Dr. Halsted's clinic is over two hours for each operation. It is not unusual to see a patient kept under ether four hours, and they do not hesitate to continue it for six hours. Dr. Halsted's theory is that it is the loss of blood that causes shock, not ether. After the first half hour the amount of ether given is small, and they allow the patients lots of air. Dr. Burnham believes that the operations at Johns Hopkins came nearer to being bloodless than those at any hospital he visited. Dr. Halsted says keep the field of your operation aseptic and it matters but little what the surroundings are. He proves this to be true by the absolute absence of pus in uninfected wounds in his clinic. The technique of his operation is perfect

Urticaria of the Upper Respiratory Tract.

Lews S. Somers, (Medical News, March 8, 1902) states that this disease may be either acute, when the symptoms usually assume a most alarming aspect, or chronic, as is more rarely the case. In either variety, but especially in the former, two types of the disease may be clearly distinguished, the first being that in which the skin eruption makes its appearance primarially and is followed by the development of wheals upon the mucous membrane, while in the second type, the difficulty of diagnosis is greatly increased by the appearance of the respiratory symptoms first, followed later by the skin eruption. In the latter form the disease closely simulates other laryngeal affections accompanied by edema and respiratory distress, and in the absence or delayed appearance of the cutaneous wheals the diagnosis may be impossible, the disease not being recognized at all or, as has been suggested by others, the affection is considered to be asthma. The history of previous attacks of the disease, even if they have not involved the mucosa, is an important aid in diagnosis and in practically all cases before the disturbance of the mucosa has entirely subsided, the appearance of isolated or multiple wheals on the skin will clearly indicate the nature of the affection. The presence of and unrecognized cough or periods of obstruction to breathing associated with irregular attacks of cutaneous urticaria should at least lead to the suspicion of some relation existing between the two phenomena, and the placing of the patient under an appropriate treatment based upon such an association may be the means of elucidating some of these obscure cases which are usually unrecognized.

Pathological and Clinical Significance of Abdominal Pain.

M. H. Richardson, (Boston Medical and Surgical Journal, Feb. 20, 1902), says that if there be the least sign of hemorrhage and the least confirmatory sign of pregnancy, the abdomen should be opened immediately. When, after ovariotomy, the pedicle slips out of the ligature and the patient bleeds to death, there is as a rule no pain; when an extra-uterine sac bursts the pain is excruciating. In both cases there is simple abdominal hemorrhage without sepsis; the difference is in the pain. The pain of acute pancreatic disease is not sufficiently distinctive to differentiate it from the pain of other epigastric lesions. In rupture of the liver, spleen or kidney, pain is at times insignificant and at other times prominent. The severe pain of initial violence, increased by hemorrhage, gradually subsides as the signs of hemorrhage become marked. The diagnosis in traumatic cases must depend on signs of hemorrhage following a violent blow, rather than upon the character of the pain. The pain of ovarian torsion is that of a suddenly enlarging and sensitive ovarian tumor—hemorrhage, with its familiar signs, sometimes augmenting the shock of ovarian torsin. In the hemorrhage of gastric or duodenal ulcers pain is not present unless there be perforation into the peritoneal cavity. The pain of abdominal lesions dependent upon rapid and extensive extravasations of septic material, is sudden, sharp and overwhelming. It is at first continous and violent, then paroxysmal and intermittent or dull and continuous; at first localized, it becomes generalized as the septic material spreads. In general peritonitis with excessive distention, pain usually subsides; it may disappear entirely when the general condition is hopeless. The pain of general peritonitis causes anxiety and shock. In no case of simple functional pain is there the effect upon the mind of grave apprehension or of constitutional

shock upon the body. It is what precedes or accompanies pain, or, more often, what is conspicuous by its absence, that gives to pain its real significance. If, with overwhelming pain, there be rigidity of the abdominal muscles and general tenderness, and if the pulse be rapidly rising, immediate exploration is warranted. Rarely does the surgeon see such a combination with normal or subnormal temperature, for in an almost incredibly short time the temperature rises and distention, vomiting and obstipation develop. Large perforation of the bowel, appendix and stomach, all have the same course. The pain of appendicitis usually starts about the umbilicus or in the epigastrium, but soon after the onset it becomes localized in the vicinity of the appendix. In any variety of abdominal extravasation it is common for the pain to start at or about the umbilicus, or in the epigastrium, and to become localized in a short time near the seat of the lesion. A consideraton of age, previous history, habit, etc., will lead the way to a differentiation of cholecystitis, gastric ulcer or pancreatitis, as the cause of acute, sudden epigastric pain.

Blood Changes Produced by Poisons.

Da Costa (Denver Medical Times, Feb., 1902) has collected a synopsis of these hemic alterations from varied sources. Anemia is noted from alcohol, corrosive metals and minerals and in lead, nitrobenzol and potassium chlorate poisoning. Leucocytosis has been observed from alcohol, ammonia, chloral, corrosives, ether, guaiacol, carbon monoxide, lead, potassium chlorate, ptomaines, snake and scorpion venom and tanzy, and occasionally opium and phosphorus. Polycythemia may accompany phosphorus, and carbon monoxide poisoning. Hemoglobinemia has been recorded as occurring in poisoning by arsenuretted hydrogen, toadstools or toluene; methemoglobinemia from acetanilid, amyl nitrite, antipyrin, bromine, chromic acid, hydrocyanic acid, illuminating gas, iodine, nitrobenzol, nitroglycerine, phenacetin, potassium chlorate and permanganate, pyrogallol, sodium nitrite and turpentine. Oligochromemia may be caused by ether; hemocytolysis, by aspidium, guaiacol or pyridin; granular basophilia, by lead; hyperviscosity, by the venom of serpents or insects; and excesssive increase of polynuclear neutrophiles, with or without leucocytosis, in rabies.

Cirrhosis of the Liver.

Crook (Medical News, Feb. 8, 1902) gives the primary varieties of the disease: 1, Venous or atrophic cirrhosis; 2, hypertrophic cirrhosis; 3, billiary cirrhosis. The first is by far the most common. It is the form of the disease always implied when no farther distinguishing designation is used. The causes are predisposing and determining, or which the latter are by far the most important, the predisposing influences being merely those which facilitate the operation of the actual exciting causes. The predisposition is said by Giovanni to consist in an excessive morbidity of the lymph corpuscles which enter into the structure of the gland. Age and sex are important among the predisposing causes. From 35 to 40 show the largest number of deaths from cirrhosis, next from 25 to 35 years and from 45 to 55 years. It has been shown that foreign born persons are vastly more liable to liver complaints than the natives. The Irish race seems to furnish the largest proportion and Germans are the next. The most important exciting or determining cause is the habitual imbibition of alcoholic stimulants. The most dangerous practice consists in the alcoholic ingestion of beverages when the stomach is comparatively empty. Syphilis, malaria, infectious diseases, overeating, certain mineral poisons are influences which are important in the causation of cirrhosis. The second variety, described by Hanot, has attracted very little attention. In this affection the liver is uniformly enlarged and smooth, moderately granular on the surface and indurated. It differs from hypertrophic liver, however, in the tendency of the liver to remain enlarged. The greater proportion of cases occur in early middle life. The third variety, billiary cirrhosis. consists fundamentally in a primary affection of the biliary recticulum, more especially in an angiocholitis or a peri-angiocholitis of the bile ducts of small and medium caliber. It is most frequently found in young males of from 20 to 25 and is in many instances due to alcoholism, but this is not always the cause.

Should Milk be Boiled?

Ransom (British Medical Journal, Feb. 22, 1902) says there is no evidence to show that milk raised to its boiling point or to the temperature of boiling water for 10 minutes or a quarter of an hour suffers any diminution of its nutriment qualities. Neither is it probable that, if consumed within 24 hours of the heating, it will cause infantile scurvy. The same is true of Pasteurized milk heated to 80 deg. or 85 deg. C. None of these methods render the milk absolutely sterile, but they do kill the majority of pathogenic micro-organisms and if the milk is kept cool and drunk within 12 hours of the heating, few or no spores

will have developed into bacilli. Pasteurization is probably less reliable than heating to 212 deg. F. for 10 minutes and is also more difficult to carry out. In times of epidemic summer diarrhea the heating should be prolonged for at least half an hour and the milk drunk within a few hours or subjected again to the process, as the spores of the bacillus sporogenes enteritidis are very resistant. Under all circumstances milk, whether raw or sterilized, should be drunk as fresh as possible and then the liability to gastroenteritis and nutritional diseases will be diminished. It is his opinion that infants, who live wholly or mainly on milk as at present supplied, should never be exposed to the dangers lurking in the raw fluid. Nothing in the paper is intended by the author to detract from the paramount importance of children being suckled by their mothers for the first 7 or 8 months of their lives; or from the equally vital matter of securing a pure milk supply from healthy cows, hygienic stables and dairies, and clean milk cans.

Tetanus Following Revaccination of the Leg.

Findlay and Findlay (London Lancet, Feb. 22, 1902) reports the case of a woman, aged 21 years, who was revaccinated upon the leg; all usual precautions were observed, the area scarified being half a square inch. The vaccination "took," constitutional symptoms being absent. Twelve days later she first complained of pain in the back, with stiffness of the neck and jaws. The vaccination wound, which had been protected with a plaster, was found to be covered with a greyish slough. It was poulticed, converted into a healthy wound, and healed in ten days. But the trismus and other tetanic symptoms grew steadily worse for ten days; treatment consisted solely of chloral hydrate, which was vigorously pushed. The patient then improved slowly, but did not completely recover her health for two months.

Although bacteriological proof was absent, the case was undoubtedly one of clasical tetanus. The source of infection was in the patient's own skin, being brought there with the dust and dirt swept up from the street by the patient's skirts.

Ventrofixation.

Pedersen (Medical News, March 1, 1902) suggests an operation on the principle of McBurney's intramuscular method of suturing the abdomen in appendectomy and remarks that the procedure has probably not been described in medical literature. The details as given by him are as follows: 1, exposure of the sheath of the rectus through a median cutaneous incision two or three inches long; 2, strong retraction of the skin to one or the other side; 3, opening the sheath of the rectus about three-quarters of an inch from the median line; 4, liberal loosening of the rectus from its sheath and retraction of it as far outward as possible; 5, opening of the peritoneal cavity; 5, loosening of the peritoneum behind the linea alba; 7, search for large vessels at this point; 8, passage of the sutures as follows: The median edge of the peritoneal wound is seized with forceps and the needle is introduced half an inch away from the middle line; it is next carried through the uterus, emerging beyond the median line on the opposite side; it is then passed forward through the peritoneum, previously loosened and described, and then through the linea alba sufficiently deep to secure a firm hold; the two ends are then seized in an artery clamp; the other suture is passed in the same way and both tied, so that the knot is extraperitoneal; 9, suture of the peritoneum; 10, restoration of the rectus to its sheath; 11, ordinary layer sutures close the rest of the wound. The result of this operation is that the uterus is suspended in the median line, as in Kelly's original operation, while the scar is lateral to the point of fixation and is itself protected by the healthy rectus muscle, being "staggered." In closing the sheath of the rectus mattress sutures were used, so arranged that they did not pull on a single bundle, but on many bundles of fibers. This was accomplished by passing the needle near the edge on the right side of the wound and emerging quite far from the edge on the left side. Then on the left side it again pierced the fascia near the edge and emerged on the right side far from the edge. When these stitches were tied this arrangement gave perfectly uniform apposition and the advantage of there not being any likelihood of their cutting through at the least strain. Another detail which seemed very advantageous in two cases operated on was the insertion of a retention catheter into the bladder before the uterus was suspended. By this it was possible to inject 6 to 10 ounces of sterile salt solution and indicate the best place for fixing the uterus with the bladder full. This enables one to avoid pressure of the uterus on the bladder for the first few months it is hoped, and in neither of his cases has the patient suffered from this cause.

Cesarian Section under Local Anesthesia.

Spencer (Jour. of Obst., and Gyn., Brit. Empire, Jan., 1902) reports the case of a woman twenty-seven years old, a dwarf, and had a conjugata vera of 2 1-2 inches.

Twice previously this operation had been performed under general anesthesia. Before operation, Schleich's eucain solution was injected along the line of the previous scars for about six inches. The scar was then incised for about four inches and the incision enlarged with scissors. The child was delivered in one minute and fifteen seconds; the placenta and membranes were removed in two minutes and thirty seconds from the commencement of the operation. The uterus and abdominal wall were then sutured in the usual way. The whole operation took twenty-five minutes till the dressing was applied. The first portion of the operation (incision and delivery) was practically painless; the sewing up of the wound in the uterus was also quite painless, but there was a good deal of pain in the sewing up of the abdominal wound, especially in stitching the facia. The mother made quite an uneventful recovery; the child weighed 6 lbs., 13 oz., was vigorous at birth and has remained so. He does not advise this method of performing Cesarian section, especially if the patient has "nerves."

Recent Views on the Origin and Nature of Herpes Zoster.

Van Harlingen (American Journal of the Medical Sciences) says that under the designation herpes zoster is to be understood a specific infectious and possible contagious exanthem, characterized in its invasion by lassitude, general malaise, chills, increased temperature,and more or less digestive disturbance; that following this, in most cases,neuralgic pains develop along certain nerve-paths or metaneuric areas, together with the development of enlarged lymphatic glands; and that several days later the characteristic exanthem shows itself and runs through a fixed cycle of development, acme, and decrudescence. In some cases visceral complications accompany the disease—paralysis of sensory or motor nerves, inflammations of the pleura, peritoneum, articular, or viscera. The infection attacks chiefly the posterior (sensory) ganglia of the cord and the gasserian ganglion.

Thence the inflammation and degeneration may extend along the nerve-trunks and fibers. Zosteroid eruptions are not infrequently observed in cases of poisoning from coal-gas, after the ingestion of arsenic, following injuries to the nerves, as a result of moral shock, as grief, or in hysteria, and probably under other conditions, but these are to be distinguished from the true herpes zoster.

Spinal Anesthesia in Obstetrics.

A.W. W. Lea (Jour. of Obst. and Gyn. of the Brit. Empire, Jan. 1902) uses this method for two reasons, (1) to mitigate or remove the pain of labor, and (2) as a method of analgesia for performing obstetric operations. The duration of analgesia is insufficient to render labor free from pain unless repeated injections are given. This plan exposes the patient to the risk of toxic symptoms,and also to the dangers of repeated punctures of the subarachnoid space,and hence cannot be generally advisable. It is, however, possible to give injections when the os is almost fully dilated,and so produce analgesia throughout the second stage of labor; but under these conditions small doses of chloroform give very good results. It has been held by some, Lucas, Championniere, Schroeder, Boudin, that chloroform tends to produce hemorrhage not more frequently than in normal cases. If, however, a distinct tendency to hemorrhage is present, spinal anesthesia by cocaine may by its stimulating action on the uterine muscle possess certain advantages. Up to the present time it has been adopted in over two hundred cases without any serious accident. Puech considers that up to the present time its superiority over chloroform has not been demonstrated in that it does not produce painless labor nor in operative work have its advantages over chloroform been established.

General Pathology of Tumors.

White (London Lancet, Feb. 22, 1902) makes the following summary: 1. Tumors are to be classified on a histological basis. The best mode of effecting this is to make use of the three-fold basis of cells, tissues and organs. 2. The rudiment from which a tumor springs may consist (1) of the structures normally present at the point of origin; 2, of an embryonic collection of cells such as is described by Cohnheim; or 3, of tissues of new formation, the result either of an inflammatory condition or of a previous tumor formation. 3, Extrinsic factors play a part in tumor causation, but are not the determining factors—that is, the occurrence or non-occurrence of a tumor does not depend on extrinsic factors. In particular the parasitic theory is shown not to stand a critical investigation. 4. The determining factor of tumor causation is to be found in the intrinsic factors. 5. This determining factor consists in the existence of a condition of unstable equilibrium between the intercellular forces, so that proliferation, once started, is progressive and is not limited by the resistance of the surrounding tissues. 6. The causes for this instability are many and various and may be either intrinsic or extrinsic. 7. Proliferation, having started, the cells acquire the habit of growth—that is, the power of independent proliferation

which enables them to proliferate in parts of the body in which the condition of equilibrium is stable. 8. Tumors grow by proliferation of their own cells. 9. Tumors do not invariably continue to increase without limit. Under certain circumstances they may cease to grow, may diminish in size or may even disappear completely. 10. Tumor formation is not to be regarded as an isolated process, but is to be considered as one of a group of progressive processes with which it is closely allied. Still less must one form of tumor, such as carcinoma, be considered apart from the others.

Emergency Herniotomy and Enterectomy.

Hewitt (Journal of the Association of Military Surgeons). Five days after the strangulation of a femoral hernia, and with no assistance except such as was rendered by laymen, the author performed the above named operation at a signal station in Alaska, the patient being a man of forty-five. The constriction was incised and the gut (four inches of small intestine) stitched into the sack; but four days later one inch of it had to be resected and an artificial anus established. Several months later a secondary operation was done, the abdomen being opened and the herniated gut divided, an end-to-end anastomosis made and the excluded portion left to shrink in the inguinal canal. The patient made a perfect recovery, passing his Murphy button on the eighteenth day.

Membranous Colitis.

M. Foster (Edin. Med. Jour., Feb., 1902). The name of the disease is, he says, to a certain extent a misnomer, since literally it embraces only those typical and unmistakable cases in which true fibrinous casts are passed from the bowel, whereas these represent only the terminal stage of the disease. The earlier stages of the cases, however, and milder types, also, of the affection, illustrate every variety of mucous discharge; all of these conditions, therefore, are to be considered as having a common clinical basis. There are three cardinal symptons of the disease: Passage of mucus, irregularity of the bowels, and abdominal pains. The distinguishing feature of the disease really consists in the character of the stools. The mucus may be present in every variety of form.

In the class of milder cases there are scybalous masses. Their presence often leads to an incorrect diagnosis, the case being considered as one of catarrhal colitis whereas it probably is a case belonging to the class of mucous colitis. The feces may be merely coated with a glairy film; such cases are very apt to be mistaken for examples of mucous colitis and therefore wrongly treated. In the more advanced stages of the disease, mucus may be passed separately, either in small globular lumps resembling frog's spawn, or as large solid lumps like pieces of jelly-fish. In the most marked cases, the mucus is condensed into membranes, which may be passed as annular casts of the intestine, or in loose shreds or strips. The membranes sometimes present an actual cast of the wall of the gut, in which the crypts of Lieberkuhn are distinctly visible. Microscopically, these membranes consist of cells embedded in a transparent matrix, containing also phosphates, cholesterin crystals, and bacteria, the B. coli communis being in the largest proportion. In addition to mucus, in a few of these cases there is another foreign substance, namely, intestinal sand, which appears as brownish red particles, much resembling uric acid. This "sand" is rarely seen except in cases of membranous colitis, and may fairly be considered as typical of one form of the malady. As regards the stools themselves, they present no other constant characteristics. Turning to the second cardinal symptom, the majority of patients have suffered from constipation. Diarrhea occurs not infrequently, but it is of the irritative variety and does not serve to unload the bowel. Pain is at some time or other a marked symptom in most cases. It may vary in intensity from an attack of mild colic to pain of such severity as to suggest the possibility of perforation. It may take the form of erratic pains over the entire abdomen, or may be localized in the region of the ascending colon with tenderness in McBurney's point, or, finally, may mimic gastric discomfort. Very rarely it is absent. Physical examination reveals cutaneous hyperesthesia, or enteroptosis, etc., but nothing pathognomonic. Constitutional symptoms are slight. In some cases there is in each attack slight fever, the temperature during the period that membranes are being passed varying from 99 to 101 deg., or even 103 deg. F. The pulse is changed only in relation to the fever or to extreme pain. During the attack, the tongue is generally coated, sometimes with thick white fur, but more commonly with a fine yellow layer. A characteristic and interesting feature of the disease is the fact that most of its victims suffer from neurasthenia, either of the moody or of the erethistic type. The nature of the disease is probably that of a secretory neurosis, finding its expression in hypersecretion of mucus; coupled with spastic constipation, whereby the mucus is molded in the colon into membranes. As has been said, sufferers from the disease are almost always neurasthenics,

and the family history will generally show a marked neurotic taint. In addition, gout undoubtedly plays an indirect part in the causation of many cases. The patients are for the most part lithemic, and have the nervous instability so often seen in those derived from gouty stock. In the management of the disease, the first step should be the treatment of the neurasthenia. A proper amount of exercise should be taken, and the food should be selected with a view of eliminating all irritating constituents. To regulate the bowels, castor oil or enemata of olive oil are useful. During the attack rest in bed and fluid diet are routine practice, and morphine may be necessary. Nerve tonics are often useful; nitrate of silver in doses of one-thirtieth of a grain is often of great service. In the more prolonged and hopeless cases, the performance of a right-sided colotomy is advocated, with a view to giving the bowel a rest. Operation should never be too long delayed, as, with all its discomforts, it affords a chance of escape from even greater miseries.

Some Indications for Gastro-Enterostomy

Mayo (International Jonrnal of Surgery, February, 1901) bases his conclusions on sixty-four such operations, a number which must be regarded as sufficient to warrent definite conclusions. The operation is indicated in malignant disease only if obstruction be present; four of sixteen cases were lost by the author. For open ulcer this operation is of the greatest value, especially if the lesion be near the pylorus; the author lost but one of thirteen such cases. In benign obstruction and dilatation, gastro-enterostomy is of chief value; such a stomach is drained from its lowest point, and, as a result, the cure is immediate and lasting; but one case out of thirty-five of this class was lost by this operator.

A Case of Stricture of the Urethra in a Female, Complicated with Enuresis, Dilatation of the Bladder, Ureters and Kidney.

Tuckerman (Cleveland Med. Gazette) reports a case of a girl, five years of age, which he had under observation from February 28, 1899, to April 20, 1900. Patient had always had bowel trouble and suffered a good deal from cholic. With a previous history of frequency of urination, from her fourth year she wet the bed at night and her clothes during the day constantly. Local examination revealed a fissure running from anterior border of the anus to the fourchette, and an incarcerated clitoris. Attention to these gave apparent improvement. April 12th she was suddenly taken with pain in the loins, severe dysuria and the passage of blood in the urine; the pain chiefly on the right side, shooting downwards towards the bladder, being strongly suggestive of renal calculus. The bladder was distended, reaching up to the navel. A stricture of the urethra, No. 10 Fr., was detected at its proximal end. This was dilated to 24 F. and the bladder emptied with a catheter every three or four days, there being always some residual urine. The patient greatly improved under treatment until April 17, 1900, when she presented herself with pain in the back and loins and some fever. These symptoms rapidly grew worse, until she suddenly died, April 20th.

At the autopsy the bladder was found dilated, with greatly thickened walls. Both ureters were dilated irregularly throughout their whole extent, and likewise the pelvis of each kidney, the cavity encroaching on the substance of the kidney itself. The whole urinary tract contained pus. The ascending mesocolon was continuous with the mesentery, and allowed as free movement of the ascending colon as of the small intestine itself. This condition doubtless explained in part the colic and bowel trouble of which the patient suffered.

Iodophilia.

Drs. Locke and Cabot (The Journal of Medical Research). Iodophilia is the reaction which certain of the white cells of the blood show when a dried blood film is brought into contact with a drop of the following solution: Iodine, one gram; iodide of potassium, three grams; water, 100 c.c.; gum arabic, fifty grams. These writers observed a number of cases in the Massachusetts General Hospital. In certain pathological conditions, such as septicemia or uremia, the uniform yellow coloration of a blood film stained with this solution is broken by the appearance in the protoplasm of the polymorphonuclear neutrophiles of reddish-brown-granules, or a diffuse brownish discoloration, and by the presence of small and large masses outside the corpuscles similarly colored. This reaction may be intracellular and extracellular. These writers came to the conclusion that the brown masses outside of the corpuscles are present in small numbers in all blood, both normal and abnormal, but frequently in such minute quantities as only to be found after long searching. Only an increase of these masses is to be considered pathological. They have been found uniformly and markedly increased in diabetes mellitus, variably in chronic or very severe acute suppurative diseases, and rarely in a few other conditions. In general it can be said that the

increase of extracellular iodophilia is of little significance. The intracellular granules, however, have never been observed in the blood of normal individuals, and their presence is always pathological. Like leucocytosis, fever and the diazo reaction, iodophilia signifies not a special disease or condition, such as abscess, but a general toxemia such as might be produced by an abscess, gangrene, uremia or malaria. Iodophilia is not identical, neither does it coincide in its indications with any of the ordinary physical signs, as leucocytosis, fever, etc. It appears to be certain evidenee that the patient is sick. It has not been observed except in severe cases, and hence these observers think that it is in this respect more reliable than either leucocytosis or fever. A "positive reaction" occurs in the following conditions: infection with pyogenic organisms, whether local or general; toxemia of bacterial origin, as in diphtheria and typhoid fever; nonbacterial toxemia, i. e., uremia; disturbances of respiration; grave anemia, both primary and secondary.

The sign was never observed in pleurisy. rheumatism, extrauterine pregnancy, alcoholism, abscesses with free drainage, lead poisoning, early malignant disease, nervous conditions, tuberculosis if uncomplicated with secondary infection, and various other diseases.

The technique of application of the test is as follows: A cover glass film is prepared in any of the usual ways and allowed to dry in the air. Without fixation it is pressed down upon a drop of the iodide solution on a slide, and examined with an oil immersion lens. In making the preparation it is well to use slightly more of the mixture than is necessary to cover the film, in order to bring the fluid in contact with all the cells, and then squeeze out all the excess by gentle pressure on the cover glass, lest the dense color of the fluid obscure the field.

Unique Case of Extra-uterine Pregnancy.

Tuholski (Amer. Gynecol. and Obstet. Journal) points out that whereas it has been proved that a fertilized ovum may become primarily implanted and develop in the abdominal cavity, secondary abdominal pregnancies have frequently been described, their usual fate being arrest of development. But all writers say that the proposition of a gestation sac containing a very young fœtus escaping completely out of the tube into the peritoneal cavity, and there becoming implanted and forming real placental connections, is not to be entertained. The following case proves that all this may occur, and the child live and go on to full development.

Mrs. X., aged thirty-nine, had given birth to six children in the course of twelve years; pregnancies were normal. She ceased to menstruate on January 5 or 6, 1900, and menstruation being missed in February, she thought herself pregnant. About the middle of March she had a sudden attack of severe abdominal pain, accompanied by collapse. Under treatment she rallied, but remained weak, while a continuous discharge occurred from the uterus. Examination on May 10 showed the uterus to have reached the size of a ten to twelve weeks' pregnancy, the left tube and ovary thickened and adherent, but no sign of any swelling in the pelvis. The history suggested an extra-uterine gestation, but the pelvis was free from any swelling. Examination of the abdomen showed its lower zone resonant on percussion, but above the level of the umbilicus there was dulness of the whole abdomen continuous with the liver dulness. The lower margin of a mass in this portion could be easily outlined, and the fingers could be pushed under the margin. On examining the back, a well-marked protuberance was found in the region of the right kidney. Auscultation over this elicited a bruit, which was like a placental bruit. Was this, then, a case of secondary abdominal pregnancy in which death of the fœtus had not occurred? On May 16 Tuholski operated by a median incision. The liver margin was found half-way between the umbilicus and the pubis. On raising the liver, there appeared on its under surface a circular swelling traversed by innumerable large arteries and veins. It was pulsating and almost cystic to touch. The patient's condition was now so bad that no further exploration was made. Some surgeons present at the operation thought the swelling a tumor cavernosus of the liver. The woman recovered from the exploratory operation, and returned home after three weeks.

Some weeks later examination showod a great enlargement of the upper right side of the abdomen, and now the fœtal heart sounds and movements could be clearly made out. Finally, in September the writer again operated, making a free incision from the tip of the last rib downwards, then forwards, and upwards, as in Koenig's operation for nephrectomy. After dissecting through the tissues, a thin part of the sac was found. This was opened, and a lusty female child, weighing 6½ pounds, was removed. The cord was tied and the cavity firmly packed. The hand in tamponing passed upwards between the liver

and kidney to the diaphragm. After operation the patient was much collapsed, and twenty-four hours later, as the temperature was rising rapidly, it was decided to change the tampon. The placenta at once began to distend, till it and blood filled the whole cavity. A tampon was rapidly inserted; the patient looked as if she were quickly dying of hæmorrhage, and she lived only eight hours.

Post-mortem examination showed the liver to be enormously enlarged and very vascular, and rotated on its axis till its right border presented near the middle line of the abdomen. The placenta occupied the right hypochondriac and part of the right lumbar regions; the placental attachment was to the diaphragm, the liver, and kidney. The intestines were free and normal; the uterus was enlarged; the left ovary and tube were thickened and adherent, while the right ovary and tube were apparently normal.

From the specimens and the previous history of the patient, the conclusion can be drawn that the young ovum, after having made its escape, found its way to the space between the liver and the peritoneum, or, more accurately, to that fold of peritoneum where the parietal layer is reflected over the under surface of the liver, forming the lower lamella of the coronary ligament. The sac developed with about three-fourths of its placental site on the parietal peritoneum; the remaining portion was closely connected with the under surface of the right lobe of the liver. On microscopic examination of the right tube, the primary placental site was found about 1 centimetre from the fimbriated extremity. The right ovary contained a well developed fresh corpus luteum.

Acute Intestinal Obstruction Following Appendicitis.

Lucius W. Hotchkiss (Annals of Surgery) states that he has only been able to find 20 cases of this complication on record, and, in addition, reports three of his own. He comes to the following conclusion: "The diagnosis of acute intestinal obstruction following appendicitis is often perfectly simple; especially as the complications generally arise within two or three weeks of the primary operation, and often after all temperature elevation and other signs of inflammation have subsided. As the obstruction is almost invariably in the intestine, and often more or less complete from the first, the symptoms are apt to be acute, the onset sudden, and fæcal vomiting to occur early.

The diagnosis, unfortunately, is not always so easy; as, for example, in cases where obstructive symptoms arise immediately after an operation, or in cases developing a few days later, when there is still some elevation of temperature. In these instances it may not be at once possible to determine whether the condition is one of post-operative ileus, which may yield to gastric lavage, and the high enemata, or one of progressive generalizing peritonitis, or a mechanical obstruction of the bowel. In some cases, indeed, there is a combination of pathological condition which only an exploratory laparotomy will make clear.

He feels no hesitancy, in view of his own experience, in urging the immediate re-opening of the abdomen, through the median incision rather than by extension of the old wound, in any cases of doubt. The reluctance of surgeons to reopen the abdomen is so well known that any reference to it here may seem unnecessary, but the writer feels that it is a factor which has to be dealt with in every case, and which requires the strongest courage of one's convictions to overcome both in one's self and others.

Many surgeons have reopened the abdomen in cases with symptoms of obstruction only to find a general peritonitis present; and the results have made most of us sceptical as to the value of the procedure, while others, after many disappointments, condemn it outright as useless. That true mechanical obstruction may coexist with a progredient fibrinopurulent peritonitis, however, cannot, of course, be denied in view of the published cases. The second of my series offers, I think, an excellent example, as does one of the cases reported by Willy Meyer in the paper already referred to.

In any case where the diagnosis of acute obstruction of the bowel is reasonably sure, and, as has been pointed out, this in most cases is not difficult, no time should be lost in operating and relieving the cause of the obstruction. The practice of waiting for fæcal vomiting in these cases is only mentioned to be condemned. Curiously, it is not always the medical brother who wishes to delay the operation, but sometimes the surgeon himself, who ought to know better.

It is perhaps the cases of partial obstruction, and those which at first are partial and then complete, which give rise to most delay, and lead us to persist too long with enemata when the indication is clearly for operation.

It is evident that the prognosis in cases of acute intestinal obstruction following appendicitis depends upon various factors other than the seat of the obstruction and its duration, and upon more, perhaps, than its early recognition and early operation.

Cases early recognized and promptly relieved by operation give almost uniformly good results, since, in the early operative cases, the obstruction alone has to be found and relieved, generally an easy matter; while in the late cases much more complicated procedures are often necessary. For in these the surgeon must not only be prepared to relieve the obstruction—often a very difficult matter—but to deal with the various complications which may exist by reason of changes which have occurred in the walls and contents of the affected intestines.

Auscultation of the Mastoid.

J. A. H. Andrews (The Laryngoscope) advises the use of the stethoscope and tuning-fork in examining mastoid cases. The test for the density of the mastoid is made by using a stethoscope with a small bell over the tip, and placing the handle of a vibrating tuning-fork against the mastoid in the neighbourhood of the antrum. It is found that when the mastoid cells are filled with pus or granulations, or when the density is increased from bone proliferation the sound waves are transmitted to the ears of the examiner with greater intensity and for a longer time than when the stethoscope and tuning-fork are placed in the same relative position over the opposite or a normal mastoid. In the examination of the two hundred mastoids in which there was no history of disease, the following results were obtained:

1. The length of time in which the fork could be heard over apparently normal mastoids varied from fifteen to twenty-two seconds.

2. The average length of time the fork could be heard was about eighteen seconds.

3. The length of time the patient could hear the fork by bone conduction was, as a rule, slightly less than the time the surgeon could hear it with the stethoscope, i.e., bone conduction was slightly less than auscultation.

4. If the conducting properties of the stethoscope are greater than the conducting properties of the one used, the difference between bone conduction and auscultation will be increased, while if the conducting properties of the stethoscope should happen to be less, the relation between bone conduction and auscultation may be reversed.

5. Tuning-forks vary greatly in the time they can be heard by the normal ear. The principles underlying the method and upon which conclusions have been based are:

1. The greater the density of the medium, the greater will be its sound-conducting properties.

2. The more nearly uniform the medium, the greater will be its sound-conducting properties.

3. Solid media of the same density transmit sound waves, within certain limitations in proportion to their relative thickness.

Two Cases of Recovery after Operation for Diffuse Peritonitis Perforatian of the Appendix.

Morton (British Medical Journal, Feb. 8th, 1902) says that early operation is of the greatest importance. The signs of diffuse peritonitis are not always distinct from those of severe localized appendicitis. In the first case here described there was little doubt that a widespread infeetion of the peritoneum was present. There was great pain and the face was drawn and anxious. The lower two-thirds of the abdomen was distended and very tender, and the breathing was entirely thoracic. Vomiting was persistent. Operation verified the diagnosis. The perforated appendix was removed. The patient recovered from the operation, but the last time she was seen there was still a small patch of surface granulations. The second case was more striking, for a few hours before operation the patients' pulse was only 100, there was no rise of temperature, and the tenderness and rigidity of the abdomen were confined to the region of the appendix, and there was no distention at all. Yet, on opening the abdomen, the lower part was sound to be full of pus. Severe pain and frequent vomiting were the prominent symptoms, but they are often very marked in well localized forms of appendicitis. On opening the abdomen, there was seen a very large quantity of pus in the pelvis and right loin. The appendix, which was perforated, was removed, and drainage tubes were indented. The patient recovered.

Primary Sarcoma of the Esophagus and Stomach.

Howard (Journal of the American Med. Asso'n, Feb. 9, 1902) gives analysis of the twelve recorded cases of sarcoma of the esophagus shows the following: 1. The disease is more common in males than in females, and at the period of life during which carcinoma most frequently occurs. It may, however, unlike carcinoma, occur in early life—between 4 and 25 years. 2. Nine of the twelve cases involved the other half of the organ, 3. While the tumors usually nearly surround the lumen, in three cases the formed pedunculated or polypoid masses projecting into the lumen. 4. Symptoms of esophageal obstruction occurred in

eleven or twelve cases. 5. There was perforation with involvement of the respiratory organs in four cases. 6. All the varieties of sarcoma except angiosarcoma have been found, the round cell variety standing first in frequency—one-fourth of the cases. 7. Metastasis occur rather frequently (five out of twelve cases), and in two cases were widespread. 8. The clinical diagnosis of esophageal sarcoma has not been made and there are no certain and constant diagnostic points between sarcoma and carcinoma of this organ, the clinical symptoms being necessarily very much the same and dependent upon the same conditions—obstruction and cachexia—in the two diseases. 9. As pointed out by both Livingood and Stark, sarcoma runs a more rapid course, and a fatal issue is to be looked for earlier than in carcinoma. The greater size of the sarcomatous growths is probably responsible for this. 10. The differences in the character, distribution, and period, of the pain in the two affections described by Stark, are not mentioned by other observers.

Regarding sarcoma of the stomach, he says:

"1. Gastric sarcoma is more common than is generally supposed, at least 61 cases being recorded. Careful routine microscopic examination of all gastric tumors met with at autopsy and operation will probably show a marked increase in the occurrence of these tumors. 2. The two sexes are affected in about equal proportions, as against five males to four females for carcinoma; 37.7 per cent. of the cases occurred below the fortieth year, and 11.44 percent. [7 cases] below the 20th year. 3. The pyloric end was involved in only 26.23 per cent. of ths cases, as against 60 per cent. for carcinoma [Welch], and caused stenosis in only 8.19 per cent. of the entire number of cases. Diffuse growths occurred in 21.31 per cent., while the cardia was involved in only 4.9 per cent. The posterior wall and great curvature are commonly involved. 4. Gastric sarcoma may reach a large size, that of a child's or man's head, and may project as large masses into the lumen of the stomach or into the peritoneal cavity, extending below the umbilicus—13.1 per cent. Such tumors have been mistaken for tumors of the spleen, omentum and ovaries, and may be pedunculated and readily removed. 5. Gastric sarcomata commonly start in the submucosa or muscularis and are less apt to ulcerate and cause hemorrhage than carcinomata. 6. All the histologic varieties of sarcoma have been found in the stomach. 7. While most of the cases in which the duration of the illness was mentioned ran an acute course, the average duration of life is probably from nine to ten months, while in one case it was three and in another five years. 8. Metastasis is not as frequent as in carcinoma, but may be widespread. The liver was invaded in only seven cases—11.47 per cent.—in striking contrast to gastric carcinoma, which, according to Welch's statistics, invaded this organ in 30 per cent. of cases. 9. There are no distinctive clinical symptoms or physical signs of sarcoma of the stomach, but a positive diagnosis has been made in three cases from microscopic examination of material obtained from the stomach. 10. In cases of large tumors connected with the stomach, especially when they project to or below the umbilicus, a diagnosis of sarcoma of the stomach is warranted. A tumor of the stomach in an individual under 20 years of age is almost certainly sarcoma. In our series 37.7 per cent. of the cases were under 40, while in Osler's 150 cases of carcinoma of the stomach only 15.3 per cent. were under this age. 11. Operation should be as successful in sarcoma as in carcinoma or the stomach."

Dr. Freyer on his Operation for Enucleation of the Prostate.

It is quite clear that at the present time a good deal of scepticism prevails among surgeons as to Dr. Freyer's operation for the total extirpation of the prostate. (The Hospital, London, Feb. 22, 1902). Not that there is any doubt about the brilliancy of the results obtained, for the cases related by Dr. Freyer are sufficient proof that the operation he describes is likely in certain conditions to be of immense utility, but rather as to the accuracy of Dr. Freyer's interpretation of what he does. The question lies in a nutshell. Does he enucleate and shell out of its bed—if it has a bed from which it can be thus enucleated and shelled out—the whole prostate gland in its own proper capsule, enclosing and carrying with it all the adenomatous masses by the growth of which it has become so greatly enlarged? which is what he says he does; or does he enucleate the adenomata alone, shelling them out of the compressed and shrivelled remains of the prostate gland which with the proper capsule are left in place? To the general practitioner, who merely sees in the operation a hopeful means of giving relief to a very grave condition, the search for an exact answer to this question may seem a matter of tweedledum and tweedledee. So that he knows to whom to send his case, he may not greatly care what are the exact anatomical relation of the "capsule" which is removed. But to surgeons it is a matter of considerable importance. As this question

has come up again, we may properly refer to the remarks made by Dr. Freyer quite recently at a clinical lecture on the subject delivered at the Polyclinic. At a previous lecture he had given details of four cases in which he had successfully performed the operation of "total enucleation of the prostate in its capsule, the urethra being left behind intact," and he now proceeded to describe a further series of four cases in which he had undertaken the same operation, and very interesting these details are. "We have now," he says "eight cases operated on, the ages varying from 62 to 76 years, all in broken health, and some of them almost in a dying condition before operation, with the prostates removed varying from $2\frac{1}{4}$ to $10\frac{1}{4}$ ounces Seven of these have been completely successful in all respects. The remaining case had recovered from the operation and was passing his urine naturally, when he was seized by acute mania from which he died." Now as to what it is that he does in obtaining these results, Dr. Freyer is absolutely positive that what he removes is the entire gland in its capsule, and in proof of this he points to the specimens, saying, "you will observe that the growth is enveloped by a thin dense fibrous capsule which is closely to it. This is the true capsule of the prostate." "There is much confusion in the text books," he says, "as to what constitutes the prostatic 'capsule,' some anatomists describing two distinct capsules—1, a thin, strong, fibrous covering, closely adherent to the prostatic substance (this is the 'true capsule,' and that removed with the prostate in my operation), and 2, the fibrous casing outside this, containing the venous plexus formed by the recto-vesical fascia, and called the 'sheath' (which is left behind in my operation, and prevents infiltration of urine). Others, again, do not draw any distinction between these two, but regard the whole as the prostatic capsule. To persons brought up in this latter school my operation must necessarily appear absurd."

The Identification of Criminals Through the Fundus of the Eye.

Weymann (Boston Medical and Surgical Journal, Feb. 20, 1902) states that anyone can at any time, with certainty, be identified by the anatomical conformation of the fundus oculi; in fact, the disposition of the arteria centralis retinæ and its branches alone would be sufficient for the purpose. Absolute identification can be obtained by a drawing (exact as a photographic reproduction or nearly so) of the papilla and a surrounding retinal circle distant from the scleral ring by two papillary diamaters. So great is the multiplicity of the anatomical relations of the vascular twigs, it is impossible to find even two fellow organs exactly alike. The points to be considered are: 1. The method of division (dichotomous or otherwise); 2, The exact point of division; 3, The exact angle of the vessels with the primary meredians; 4, The exact distance of one divisional point from the other; 5, The relative size of the divided twigs; 6, The angle of division; 7, The course of the twigs (straight, curved, etc.); 8, The exact distance, everywhere and at every point, between venous and arterial branches (parallelism, convergence or divergence, twining, etc.)

Operative Treatment of Adenoids and Enlarged Tonsils.

Dr. W. K. Simpson (Medical Record, March 1, 1902) read a paper with this title at a recent meeting of the New York Academy of Medicine. He said that, strange as it might seem, there were still some who, for various reasons, were opposed to operation on adenoids and enlarged tonsils. In his opinion, all hypertrophied tonsils and adenoids in children sufficiently large to produce symptoms should be surgically removed. He was convinced that adenoids were responsible for more ills in childhood than any other one common pathological condition. Among the disorders arising from the presence of pharyngeal adenoids were repeated attacks of coryza, chronic rhinitis, arrest of nasal development, nasal stenosis and mouth breathing with the associated mental listlessness; a tendency to attacks of spasmodic croup, asthma and bronchitis. It was also almost the sole cause of middle ear deafness in cases of acute suppurative otitis media. A digital exploration should always be made before operating. The curette and forceps were the instruments needed for the removal of the adenoids; the use of the finger for this purpose was mentioned only to be condemned. The choice between the curette and the forceps was a matter of individual preference. He personally preferred the forceps, because it would bring away a larger mass and the operator could see how much had been removed. With the curette the portion removed was apt to be lost and might even drop into the larynx. In small children the curette was probably the safer instrument. The forceps should be strong, large enough to conform to the shape of the nasopharyngeal vault, and have sufficient cutting surface, and should be so protected as not to do harm to the uvula or the posterior border of the soft palate. The principal fault with the older type of forceps, represented by the Lowenberg forceps,

was that the cutting surface was too small, necessitating repeated introductions. It was exceedingly difficult to exactly locate a small instrument in the nasopharynx, and hence he preferred a larger forceps. A very useful type of forceps was the Graedle, particularly as modified by Concannon. This forceps has an extensive cutting edge, and hence tearing was not necessary. When the operation was to be done without an anæsthetic, the child should be placed upright, and held by an assistant in the intubation position. A mouth-gag is used and the forceps are introduced, closed. They are then opened widely and pressed well upward and behind, the mass seized and the forceps withdrawn. The finger should always be introduced in order to determine the location and extent of any remaining masses. The latter might be removed with the finger, curette, or with smaller forceps. Occasionally only a small amount of the growth would be removed at the first attempt, because of a faulty adjustment of the instrument. The patient's head should be raised for a moment during the introduction of the instrument; then lowered and the child turned on the side to allow of the escape of blood. When the curette was used the position was the same. The curette should be chosen in view to size and curve, these being determined by the age of the child and the situation of the growth. For those situated more on the vault and anterior, a curette with a marked forward curve would be required. The Gottstein curette, or some modification of it, was usually employed. The curette should be carried well up into the vault, carrying the soft palate forward; then it should be brought down with a bold sweep. Adenoids would recur in a small proportion of cases, probably because of portions having been left behind.

Primary Intestinal Tuberculosis in Children; Its Frequency and the Evidence of its Relation to Bovine Tuberculosis.

Bovaird (Archives of Pediatrics) discusses the transmission of tuberculosis from cattle or man. He says that percentage of tuberculous cattle found in various abbatoirs varies in different places from 12 to 18 per cent. under ordinary condition to as high as 30 per cent. in certain towns and even reaching 70 per cent. in some of the herds of London.

Ostertag contends that a more careful examination would greatly increase the percentage.

The possibility of transmission of tuberculosis by the meat of tuberculous animals may be excluded except in those rare instances in which tuberculous nodules are found in the muscles. And the milk is really dangerous only from those cows that have tuberculous udders. These two statements may be considered well established, although several investigators have recently reported tuberculous milk from cattle whose udders were apparently free from disease. Bovaird's conclusions are that (1) milk is virulent only when the udder is the seat of tuberculous lesions; that 2, virulent milk is dangers only when taken in considerable quantities; that 3, practically danger from ingestion of raw milk exists only for those who use it as their sole or principal diet, that is to say, young children and certain invalids, and to avoid all danger it is sufficient to bring the milk to a boil before it is consumed.

The direct evidence available in literature to prove that tuberculous milk has produced tuberculosis in children is suprisingly scant. The author finds only 22 cases reported during the past fifteen years. In each of these cases one could scarcely doubt that milk was the cause of infection, as each patient was shown to have ingested quantities of tuberculous milk.

Accepting every case of primary intestinal tuberculosis in children as due to the ingestion of tuberculous milk, we find again that evidence is scant.

In New York city and environs out of 369 cases of tuberculosis in children only 5 are reported as of intestinal origin—one per cent. About 4 per cent. of such cases are reported by German observers, while English authorities give 18 per cent. After a review of a considerable amount of literature the author concludes:

1. That English reports alone show any considerable number of cases of primary intestinal tuberculosis.

2. That primary intestinal tuberculosis is a very rare affection in or about New York, about one per cent. of cases of tuberculosis having such an origin.

3. That the evidence connecting tuberculosis among children with the consumption of milk of tuberculous cattle is very scant.

Lavage of the Stomach in the Treatment of Constipation.

Spivak (Jour. Am. Med. Assoc.) claims priority for the observation that gastric lavage cures chronic constipation. Lavage is indicated as a therapeutic measure in (1) constipation due to excessive acidity of the stomach; 2, constipation due to gastric atony; 3, diarrhea resulting from the excessive production of mucus in the stomach; 4, obstruction of the intestines from whatever cause; 5, habitual constipation.

By lavage we relieve the upper portion of the bowel from the pressure and weight exerted by the contents of the stomach, relieving the general tension.

His conclusions are as follows: 1. A certain percentage of individuals suffering from habitual constipation are apt to have a spontaneous movement of the bowels the following day after the stomach has been washed for the first time; 2, the majority of such patients will eventually recover the normal function of their bowels, if lavage is continued daily for two or three weeks, and later at great intervals; 3, the best results are obtained from using cold water, or hot and cold water alternately; 4, the best time for lavage is one hour before breakfast.

Water Purification with Ozone.

According to the Sanitarian, the New York Sun reports that a new method of sterilizing a city's water supply is being successfully operated in Russia. Nicholas Simin, chief engineer of the city of Moscow, where the system has been adopted, described the method in a paper forwarded to the annual meeting of the American Association of Water Works Engineers.

The introduction of ozonized air into the water destroys all the bacteria, and makes it at comparatively small cost absolutely safe for drinking purposes. The ozone burns all organic matter with which it comes in contact in water, including bacteria and their vital products. The pathogenic bacteria are among the first to be destroyed.

Three Cases of Ureteral Surgery.

Cœ, (American Journal of the Medical Sciences) states that these cases illustrate the fact that in complicated cases, especially with intra-ligamentary tumours, it is at times impossible to identify the displaced ureters before they are injured, and that if they are injured nothing except the desperate condition of the patient should deter the surgeon from at once uniting the cut ends. The writer deprecates suturing the end of the ureter in the abdominal wound or removing the healthy kidney. Dr. Cœ regards immediate repair as of the greatest importance, since secondary operations for the cure of ureteral fistulæ, even in the hands of experts, are beset with great difficulties.

Case 1.—A single woman, aged twenty-six, suffered from a rapidly growing fibromyoma reaching as high as the umbilicus, and causing marked pressure symptoms. At the operation the tumor was found to extend into the broad ligament, and displaced the uterine artery and ureter to such a degree that both were ligated and divided before the accident was discovered. The ureter was then freed from the ligature the end surrounded with gauze, and the entire uterus removed. The ureter was next repaired by the lateral method of Van Hook and Kelly. Convalesence was normal; the average daily amount of urine 30 to 40 ounces to the sixth day, when a leakage was noted. This did not trouble the patient much, and although during her six weeks' stay in the hospital the fistula did not close, it subsequently did, and she regained perfect health.

Case 2.—A married woman, aged fifty-nine, was operated upon for double intraligamentary dermoid cysts and universal intestinal and intrapelvic adhesions. It was found necessary to remove the uterus, and the left ureter was torn across during the operation. The distal end of the ureter was so dilated that the proximal end was invaginated into it for an inch of its length, and the ends then secured with sero-serous sutures. The whole pelvis having been denuded of peritoneum, no peritoneal flap could be secured, so the entire pelvis was packed with gauze, on which the ureter rested. Whilst inserting the gauze traction was made on the ureter and the ends were pulled apart, so that the work had to be done again. Patient made an uninterrupted recovery, and passed a normal amount of urine from the outset.

Case 3.—A married woman, aged thirty-one, with a myxo-angeioma occupying the vesico-uterine pouch, displacing the uterus backward and the bladder forward. On trying to enucleate the tumour the bleeding became so profuse that he had to tampon the cavity and stop. Two weeks later the author enucleated the growth, and found attached to the portion removed, a square inch of the trigone and one inch of the left ureter. He also found that the right ureter had been severed close to the bladder. Although the patient was very collapsed, he managed to suture the wounds in the bladder, and also united the left ureter to the bladder. The operation had then to be suspended, as the patient was apparently dying, and the right ureter could not be dealt with. The patient recovered from this operation, with a large fistula two inches in diameter in the base of the bladder, most of the sutures having given way. Three months later on examination it was found that the uterovesical anastomosis on the left side had been successful, and that the right ureter had become adherent to the edge of the fistula. This latter was suitably treated, the fitula closed, and the patient made a perfect recovery.

Alexander's Operation for Retroversion of the Uterus.

Le Roy Broun, (Medical Record, Feb. 22, 1902) the use of this operation is to correct the backward displacement of a uterus that is free of adhesions, that can be easily replaced in its normal position, and shows no tendency to return to malposition while the patient remains quiet on her side on the examining table. Having studied the after-history of 230 cases thus treated, Dr. Broun is convinced that, in his hands, no other operation for a like condition will yield the same constant anatomic result and give as satisfactory clinical relief. In multiparous women a retroversion is usually associated with laceration of the cervix, tear in the floor of the vagina and a resulting endometritis. These should be treated at the same time, the order of operation being curettage, repair of cervix, Alexander's operation, and repair of the vaginal floor. He details the technic of Alexander's operation, emphasizing the point that the genitocrural nerve must not be injured nor included in the sutures which are afterward placed. To accomplish this the nerve is isolated and temporarily held apart by the loop of a ligature. In the 230 cases under consideration the anatomic, surgical and clinical results were almost invariably good and the cure permanent, only one case being known in wich the uterus resumed its backward position. In this case the ligaments were anchored with chromicized catgut. As the time which this will remain intact is uncertain he has never used it since this experience. Inguinal hernia, which sometimes occurs after Alexander's operation, is usually due to some fault in the operation, either at the internal abdominal ring or at the external ring.

Two Cases of Perityphlitis.

Dr. D. W. Finlay, (British Medical Journal, Feb. 8, 1902) calls attention to the fact that many cases of inflammation in the right iliac fossa occur, in which we have no proof that the appendix is at fault, however, much we may suspect it; and that in some others, even after the evacuation of pus, the complicity of the appendix is only a matter of strong inference; so that the term "appendicitis" assumes too much, and he prefers to use "perityphlitis" in its stead. The early recognition of, and the surgical dealing with, the fulminating class of cases is of paramount importance. In the simple cases where there is much pain, the application of two or three leeches over the swelling may often give relief. Purgatives should never be used. Opium, not pushed too far, is the only useful drug, on account of its power to alleviate pain and to check peristalsis of the bowels.

Phrenic Paralysis following Diphtheria.

McKenzie, (Intercolonial Medical Journal) reports two cases, the first, a boy aged six years, with a distinct history of throat affection, which was undoubtedly diphtherial in character. He was treated in the Melbourne Hospital, and four weeks later he came to the out patient department of the Children's Hospital with weakness of the extremities. He was found to be suffering from ordinary post-diphtherial neuritis. He was kept in bed, and ordered quinine and strychnine, and later, massaged, with such improvement that in about twelve days he was able to walk fairly steadily across the ward. So great was the improvement that his discharge was talked of. Thirteen days after admission—that is, about seventeen days after the paralysis was first noticed—following a dose of medicine, a sudden change in the patient was observed. The face became congested, the expression anxious. The temperature fell. There was dispnœa, the respirations being of a catchy, embarrassed, shallow nature. The pulse-rate was increased to 100, regular, poor volume and tension, and coldness of the extremities. The clinical picture was not unlike that of a pulmonary embolism. The child was placed in the recumbent position, propped slightly, and ordered strychnine and brandy. Prior to this he could speak well and plainly, but suddenly the speech became merely a monosyllabic whisper. This remained characteristic right through. A more complete examination a few hours afterwards showed an abdomen (which before had been full and moved freely up and down with the respiratory movements) to be now slightly carinated, and moving in a jerky spasmodic way, the breathing being almost completely thoracic, and little abdominal. There was nothing abnormal to be detected in the heart or lungs beyond a harsh reapiratory murmur. During the next few days he rallied somewhat, but the dyspnœa still continued and about the third day the respirations became increased. The temperature rose slightly; the abdomen became more retracted and immobile; pulse increased in frequency; rhonchi and crepitations, with dull areas, were detected in the chest. Ill-smelling mucus was coughed up, and finally death occurred, apparently from heart failure, six days from the onset of the attack. In the second case, the patient was admitted suffering from an ulcer of the foot, said to have been the result of a broken-down chilblain, but which, in con-

junction with other signs, was diagnosed as syphilitic. He was treated with mercury and fomentations, and the ulcer had almost healed. One night, suddenly, a similar crisis occurred as in the preceding case, the clinical features being identical, especially the monosyllabic whispering voice, but in this case, though the bases were congested, and bronchitis and broncho-pneumonic patches were present, they never went on to septic degeneration, probably because the patient did not live long enough. Death occurred suddenly from heart failure on the fifth day. In this case, beyond a loss of patellar reflex, no other evidences of paralysis could be discovered. Here a definite history could not be obtained of diphtheria, although the patient was said to have had a faucitis some three weeks previously, for which he had not been treated. In both these cases the important clinical features were: 1, An enlarged thorax as compared with that of the abdomen, especially of its lower part; 2, abdominal carination; 3, the absence of abdominal movement beyond a jerking effort seen at the upper part, there being no true rise and fall of the abdominal wall; 4, monosyllabic whispering voice; 5, a comparatively good pulse, regular, fair volume and tension; 6, vomiting at the outset, but not afterwards; 7, the reluctance in taking food, owing to the effort required in deglutition; 8, the fixidity of the eyeballs at the onset of the crisis; 9, the development of pneumonia, and finally death from heart failure. The mechanism of such a condition can, says the author, be easily understood. Although the increased thoracic movement may be sufficient for aeration purposes, still, owing to the non-descent of the diaphragm, some congestion of the bases must be present. A congested base means an irresistent base and an impaired right heart; so that, though at first one had to do with a congestive pneumonia, this latter became inflammatory and still later septic, death occurring through the circulatory portal.

Surgical Treatment of Injuries and Diseases of the Pancreas.

Roswell Park (American Medicine, Feb. 15th 1902) states that when necessary the pancreas may be reached through the gastro-hepatic omentum above the stomach; through the gastric omentum below the stomach; through the transverse mesocolon back of the colon and stomach; from the loin behind the peritoneum and through the liver, with a thermocautery. The author names the various conditions which may call for surgical intervention upon the pancrease as follows: traumatisms, prolapse, malignant disease, cysts, calculi, acute, subacute, and chronic pancreatitis, and finally, tuberculosis. Experience has not yet shown that in a man a complete removal of the pancreas would be either justifiable or successful even though its blood supply or the principal duct were destroyed, Dr. Park gives the technique of the operative procedures necessary in the conditions named and urges prompt surgical intervention in the treatment of pancreatic lesions.

Recovery after Hysterectomy.

Brown (Am. Jour. Obs.) says:

1. While the finished result of a supravaginal hysterectomy is most satisfactory, the operation is, however, marred by the possibility of a secondary infection, at times terminating fatally. When this infection does occur it can be reached only by some secondary operation.

2. The chance of this infection occurring is greatest when the subperitoneal space is drained through the canal of the cervical stump, or when the canal is left open. There is every reason to close the stump, as offering the best results.

3. Total abdominial hysterectomy, though not such a finished operation as the supravaginal, is, however, one in which there is less likelihood of any secondary complications, and, though objectionable on account of the suppurating cavity to be closed by contraction and granulation, yet offers to the patient a surer means of an uninterrupted recovery. This conclusion, while at variance with Olshausen's large collections of cases, in which he gives a 5.6 per cent. death rate for supravaginal and in 9.6 per cent. rate for fatal hysterectomies, is, however, the only one to be drawn from the collection of consecutive cases brought together here.

The Toxemia of Pregnancy.

S. Marx (Medical Record) concludes a very interesting article as follows:

1. Toxemia of pregnancy is a complex condition depending on more than one factor.

2. Many women go to term with albuminuria, without symptoms referable to a toxemia. When such symptoms arise, they are not caused by the albumin present, but by faulty urea secretion.

3. In the most desperate and malignant cases there is found neither albumin nor casts.

4. Urea is always found markedly diminished in the so-called true toxemias of pregnancy, or uremias.

5. Finally, I make a strong plea for a regular and methodical course of urea estimation in all cases of toxemia, or for

the relegation to secondary importance of the time-honored examination for albumin.

6. Progressive diminution of urea excretion, with or without albuminuria, is the sole indication for the induction of premature labor, which is especially indicated when conscientious medical treatment fails.

The Etiology of Melancholia.

H. H. Stoner (Medical News) believes that melancholia is due to a disturbed balance between anabolic and catabolic tissue metabolism. It is an emotional disease, wherein emotions are of a painful character, and the emotions he regards as wholly dependent upon vegetative functions. According to Dr. Stoner the cortical cells, or psychical neurons, functionate normally in melancholia; the quality of the sensation depends on the kind of stimulus inducing it; the quality of the sensation in melancholia is invariably painful, consequently it is due to the normal interpretation by a healthy cell of an abnormal stimulus. Assuming that a stimulus which enhances the metabolic process produces pleasurable emotions, and one which inhibits the process calls forth painful emotions, it is inferred that undue destructive metabolism is the abnormal stimulus referred to. The mental depression is explained by the patient's being absorbed by the painful emotions; that the psychical cells are not at fault is shown by the fact that the patient can be roused to the appreciation of other stimuli. He considers that the successful treatment of melancholia goes to prove the validity of his theory, as the only successful treatment tends to the re-establishment of the normal balance between constructive and destructive metamorphosis.

The X-Ray in Lupus Erythematosus.

Richard F. Woods (Amer. Journ. Med. Sci.) reports this interesting case:

The lesion, which has been steadily growing for four years, was entirely eradicated in five exposures to the rays, each treatment lasting ten minutes. The patient was a woman aged 32. There was no tuberculous history. Four years previously she noticed a small pimple on her face, which she constantly irritated with her finger. It steadily increased in size, giving her some pain, and bleeding freely at times, and especially worried her in cold weather. She had attended several hospitals for two years, and had applied various ointments and taken medicine internally without success. She came under the authors observation on July 12th, 1901. The growth at that time was about the size of a half-dollar, situated slightly above the angle of the mouth. It was of the discoid form, slightly raised, and of a bright reddish colour. The center of the growth was partially covered with scales. The erythematous border was sharply bounded by the skin, and was firm to the touch. There was some alteration in the mouths of the sebaceous glands; the follicular orifices were enlarged, gaping, and filled with hardened sebaceous matter. The x rays were applied for the first time two days later at the Pennsylvania Hospital. The face was covered with a sheet of lead from which a small V-shaped piece had been removed to expose the growth. This was thought necessary to protect the face from burning. The ordinary Ruhmkorff coil was used, charged from the electric lighting current, and had the strength of about eleven volts. The current was turned on for ten minutes, and the distance between the face and the tube was seven inches. The treatments were continued twice a week. When the patient returned for the second exposure the improvement was remarkable. The entire character of the growth had changed. There was a diminution in the colour and the prominence of the edges. The erythematous halo was fading away, and the raised margins had become level with the sound skin, while the central portion was becoming depressed and atrophic. The improvement continued rapidly, and when the patient returned for the sixth treatment it was found unnecessary to continue. The area of ulceration had entirely healed and was covered with a healthy cicatrix.

Remarks on Early Ectopic Gestation.

Browd, (Philadelphia Medical Journal) says:

1. Early ectopic pregnancy runs a treacherous and uncertain course.

2. Symptoms of pain, tumor or oozing of blood are not the absolute signs of an early ectopic gestation, but their existence must be considered "cum grano salis," and each case must be observed per se.

3. Clear history cannot always be obtained from the patient, and the period of lactation will still more darken the clinical history.

4. Microscopic examination of the uterine scrapings, presence of decidual cells of chorionic villi which find advocates in many observers, find also as many opponents.

TREATMENT.

As late as the year 1891 the electrical current for killing the ovum of an ectopic pregnancy has been advised by such prominent gynecologists as William T. Lusk and B. Emmet.

The drift of the twentieth century is towards abdominal section in each suspicious case of an extra uterine.

Curetting in a suspicious oozing from uterus does more harm than good, aggravates the case and leads to hematoceles, etc.

Probe puncture into the bulging mass may be the cause of future infection.

The so-called "suspicious cases" of extra uterine pregnancy with the suspicious tumor in the Fallopian tubes should in the author's opinion, not be kept under long observation until it is "too late to mend," but should be operated at once.

In conclusion he says our best surgeons tell us not to wait till symptoms of pus or rupture will take place in the tube of the appendix, but to operate early.

They also claim best results in early operations before the rupture of the appendix.

Availlng himself of this comparison, the author broadly says that in a case of a suspicious extra uterine gestation, to operate when you positively know of its existence, and in a case of dark and baffling symptoms operate because you do not know of its existence.

Exploratory laparotomies at the present advanced stage of abdominal surgery in cases of blood and non-pus tubes give perfect results and such attempts of exploration will surely be justified in view of the desire to save our patient's life, and in the light of advanced and broad views of modern surgery of the twentieth century.

Tumors of the Central Nervous System: Remarks on Noteworthy Cases.

Collins (Medical Record, Feb. 15, 1902) believes that the surgeon's field of usefulness is larger in spinal-cord tumor than in brain tumor, although tumors of the spinal cord offer much greater difficulty of diagnosis than those of the brain. The latter are almost constantly attended by a symptom-group, made up principally of headache, vertigo, vomiting, hebetude, apathy, staggering, spasm or paresis of an extremity, and optic neuritis, which can scarcely be paralleled by any other condition. On the other hand, tumors of the cord have no such constant clinical picture, and, to make the diagnosis, much more minute observation and closer analysis are called for than when the brain is similarly affected.

The Prevention of Ophthalmia Neonatorum.

Howe (Philadelphia Medical Journal) urges the enactment of laws which will make it compulsory upon the practitioner to adopt some form of prophylaxis against this disease, which is responsible for so many cases of blindness. Dr. Howe gives statistics by Kostling, showing that in 17,000 births where no prophylactic treatment had been employed some trace of ophthalmia developed in over 9 per cent. whereas in 24,000 children treated by the Crede method the number who developed the disease was only one half of one per cent. The Crede method, however, has the disadvantage of always producing some pain and usually more or less conjunctivitis, while in a few instances it has given rise to corneal ulceration. According to the statistics of Piotrowski, in 1,030 children treated with a strong solution of boric acid and a 10 per cent. solution of protargol, not single case of ophthalmia occurred, while slight catarrhal conjunctivitis was observed in only 1.2 per cent. Aside from the numerous favorable reports on the value of protargol as a prophylactic against this affection by European authors, the drug is preferred for this purpose by many ophthalmologists in this country, including Drs. Alt, Peck, Cheney, Fox, Hotx Zimmermann, Converse and Todd.

Infantile Pleurisy with Effusion.

W. T. English [Medical News, Nov. 16, 1901] says:

There are many difficulties in the way of a thorough physical examination of the baby thorax. The pose and covering favorably to best results are almost never realized. Needful quiescence is wanting, and because of the small area of the infant thorax, the employment of the immediate methods of auscultation and percussion are precluded, or are rendered of little service. Persisting in the immediate methods of percussion, the laying on of heavy hands awakens a resistance through the external sense of feeling and brings about a tissue tension which changes the resulting note. The application of the side of the head to the child's thorax brings in play the sound conducting power of the head bones, and the audible phenomena belonging to the entire side are thus made confusing.

If a case of infantile pleurisy with effusion be investigated systematically, the history of children, if secured at all, will be found to have exhibited an intensity ranging from slight chill to severe rigor. A casual glance at the fever chart of forty-eight hours will betray extensive excursions and even suggest septic processes. The fever is irregular and remittent; the pulse always without rhyme or reason until the period of puberty, sustains its reputation. Pain cannot be definitely located, but is intimated in a pantomic way and given a very vague abiding place. The visualizing analysis of inspection loses its value as a

means of differentiating pleurisy with effusion from pneumonia, as loss of mobolity is common to both; and again, the respiratory experience of the infant chest is too limited to be trustworthy. Flattening of intercostals or distention is duly observed in a few cases but flattening is rarely appreciable, and fluid sufficient to cause bulging does not often accumulate in the infant thorax.

Displacement of the heart-beat is seldom demonstrable in the extremely young, but if it can be it merits attention. The sign is most valuable in left-sided effusions. Vocal fremitus is not often observed in the infant chest and the respirations are accelerated in proportion to the neurosal conditions rather than with the pressure of the fluid. Neurosal symptoms are emphasized to the degree of epileptiform seizures and the ultimate manifestations in the presence of purulent effusions have been those of meningitis. The respiratory action should be estimated during slumber or in quiescent wakeful periods.

The auditory phenomenon which may also appeal to touch—friction—is not intensely developed and when present is evanescent and must be found without delay or it will evade detection. Influencing all auditory phenomena is the peculiar subtympanitic note residing in the child's thorax. Immediately over as well as around the fluid within the pleura percussion may secure a clear sound. Flatness belongs to massive effusions and the tone elicited is a compromise between the tympanitic and the dull note. In using the light stroke, the tactile sense of resistance is sacrificed. The heavy stroke delivered upon thorax of the infant would awaken a response from the abdomen or stomach. An important fact often overlooked is the purely physical one, that fluid is a good conductor of sound provided the sound be properly transmitted and through material which has good conducting qualities. The air vesicles are not good transmitters, and so long as these intervene between the bronchial tubes and the fluid the tubular sounds cannot travel. However, only a meager amount of fluid is required to collapse the infantile alveoli and produce atelectasis. The tubes continue some time thereafter to maintain their lumen and resist the pressure. These conditions impart to the percussion note dullnessness instead of flatness, modify tactile and vocal fremitus, contribute bronchophony, transmit bronchial rales and crepitations, thus sustaining the delusion of pneumonia. The clicking of coins upon the infantile pleuritic effusion is transmitted much better through the fluid than over the normal vesicular lung structure. If the circumscribed area be delineated it will not be discovered necessarily in the lower portion of the chest but may appear encysted in other localities. Adhesions may so perfectly surround it that change in position has no effect upon it. It is only when the effusion is extremely large that the curve of Ellis and Damoiseau can be defined. Small areas of fluid will escape detection and often the diagnosis will be incomplete,

Having arrived at a suspicion of fluid, the diagnosis can only be determined by the aspirating needle. Moreover, it is the only sure method of determining the character of the fluid. In a few cases, aspiration is at once diagnostic and a measure which is conducive to cure. By the withdrawal of a very small amount of the simple effusion, absorption has been promoted. If the fluid is purulent it should be removed without delay in order to prevent an empyema with lasting damages to the thorax, if not death to the patient.

In casting about for diagnostic means by which to attain the desirable and needful certitude, the radioscope has been faithfully appealed to, but in vain. One reliable aid is ever near at hand—the exploring needle. The ordinary hypodermic needle is never efficient. A large needle is required, but it need not be over 1½ inch in length. One precaution is to have it small enough to enter between the ribs without extending the wound unnecessarily. If the first puncture fails to secure fluid, a second should follow in forty-eight hours. If the general symptoms or a previous puncture should intimate the probability of purulent fluid or pus the needle adopted should be appropriately large.

Dissecting Abscess of the Abdominal Wall Producing Deformity Simulating Pott's Disease.

J. B. Bullitt (Journal American Med. Association) says:

1. Abscesses of the abdominal wall without any connection with the abdominal cavity occur most frequently as a result of typhoid fever and readily heal after incision and drainage.

2. The larger dissecting abscesses of the abdominal wall communicate at their inception with some portion of the intestinal tract, occur most frequently as a sequela of typhoid fever and appendicitis, and result from an adhesion between the parietal peritoneum and a viscus, with perforation of the latter. After rupture such abscesses follow the course of fecal fistula, healing sometimes spontaneously or as a result of incision with drainage only after the communication with the intestine has become

obliterated. The obliteration sometimes occurs spontaneously, sometimes must be brought aboul by operative procedure.

3. A dissecting abscess may produce symptoms and deformity simulating Pott's disease; on the other hand, Pott's disease with abscess appearing after an attack of typhoid fever may be confounded with abscess resulting from the typhoidal process.

Natural Method of Draining the Peritoneal Cavity.

John G. Clark (University of Pennsylvania Medical Bulletin, November, 1901) sums up the conclusions as follows: 1. The peritoneum has an enormous absorbing function, being capable of taking up in an hour 3 to 8 per cent. of the entire body weight. 2. Numbers of solid particles are carried in an incredibly short time from the peritoneal cavity through the diaphragm into the mediastinal lymph vessels and glands, and thence into the blood circulation, by which they are quickly distributed to the abdominal organs and to the hone marrow. 3. The granular bodies are at first largely transported as free bodies, swept along by the lymph currents, but later the leucocytes act as the carriers. 4. There is normally a force in the peritoneal cavity which carries fluids and foreign particles towards the diaphragm, regardless of posture, although gravity may greatly favour or retard the current. 5. After the introduction of micro-organisms into the peritoneal cavity, there is a great decrease in their number within the first hour, both through their intraperitoneal destruction and through their rapid absorption into the general system, where they are dealt with. There is, therefore, no possibility of limiting free infectious matter to any part of the peritoneal cavity by mechanical means, 6. Vigorous streptococci which remain behind, develop, within six hours, a repellent or destructive quality for leucocytes, and the lethal combat is, therefore, inaugurated and well under way before drainage, as ordinarily employed, can possibly exercise any beneficial action. In many cases, therefore, in which surgical drainage is employed the patient recovers in spite of and not because of it. 7. A modern amount of even virulent organisms, carried by the blood to the lungs, liver, spleen, kidneys, gastro-intestinal tract and bone marrow, may be destroyed or eliminated without the least harm to the patient, whereas, if the same amount of infectious matter is detained about a surgical field in the abdominal cavity, or stagnates in a dependent pocket, they may generate millions of others, and thus overwhelm the patient. 8. In many cases, therefore, drainage,as ordinarily employed, is superfluous, or even dangerous, and the rational method is to remove all possible debris and infectious matter by thorough irrigation, and then leave one litre of salt solution (0.6 per cent.) in the abdominal cavity, and in order to promote and hasten natural drainage, supplement this by an enema of a litre of salt solution given while the patient is well under anaesthesia and in the Trendelenburg posture. 9. Under this plan the patient is greatly stimulated, shock is minimized or averted, the urinary excretion is greatly incroased, and thns toxic matters are more easily eliminated without irritation to the kidneys or bladder, peritoneal infection is quickly eliminated, while yet mimimum in amount, thirst is alleviated or entirely prevented, intestinal peristalsis is promoted, and consequently tympanites is of less frequent occurrence, and the early action of the intestine evacuates infectious matter thrown out into the canal by the blood vessels of the villi. All these factors combine to reduce mortality after abdominal sections, to decrease the pain, discomforts, and complications of the first-eight hours, and finally to hasten the recovery of the patient.

Tuberculosis.

Dr. J. E. Stubbert (Post Graduate) advises special care of the alimentary canal and the blood. Chronic gastritis and dilatation of the stomach are very common, but one must not be misled by a temporary upsetting of the stomach from cough syrup, creosote, etc.. The treatment is first, lavage two or three times a week, and, second the Einhorn electrode. The diet at first should be liquid or semisolid. Secondary anemia is the common blood condition and is most satisfactorily treated by arsenic and iron. Bland's pills, chloride of iron, peptomangan, Fowler's solution, arsenauro and arseniated hemaboloids are of value. Static electricity is another good general tonic. For the cough do not give sweet vehicles and avoid morphine if possible. Two or three doses a day of codeine, gm. 0.015 [gr. ¼], or heroin, gm. 0.005 [gr. 1-12], will gradually bring the congh under control. Of inhalars the Underwood hot-air inspirator, used once or twice a day at 300 to 400 degrees, F.. has its advantages. The following are good solutions to use with it:

℞ Ol. camphor, gtt. clx
Terebene.
Eucalyptol, aa. ad 30.9 (℥i)
Dose: Two to ten drops.

℞ Creosoti, 8.0 in 30 c.c. (℥ji in ℥i)
Thymol, 0.25 in 30 c.c. (gr. iv. in ℥i)
Eucalyptol.
Ol. pini sylvestris.
Ol. gaultheriæ.
Ol. menth. pip.
Acidi benzoici.
Dose: Two to eight drops.

℞ Tinc. hyoscyami, gtt. L in 30 c.c. (℥i)
Tinc. iodi.
Ol. pini sylvestris.
Menthol.
Alcohol.
Eucalyptol.
Dose: Five to ten drops.

But the multinebulizer is much better for general use. Solutions adapted to it are:

℞ Menthol.
Camphor, aa. gm. 1.0 (gr. xv.)
Abolene, ad. 30.0 (℥i)

℞ Creosote, c.c. 4.0 (℥i)
Alboline, ad. 30.0 (℥i)

℞ Alcohol, 75 per cent.
Glycerin.

For two or three hours after the use of either of these inhalers the breath gives the odor of the drug used, showing that the bronchial mucous membrane must have been tolerably well saturated.

Remarks on Vaccination In Relation to Skin Diseases and Eruptions Following Vaccination.

Harlingen, (Philadelphia Medical Journal). The eruptions which follow the development of the vesicles and are due to the absorption of the virus, are without exception angio-neurotic in character and belong to the same series. Roseola, like measles; erythema, like scarlet fever; erythema multiforme, and the so called vaccine lichen include the series. The latter is described by Croker as coming out on the fourth to the eighteenth day, most frequently on the eighth, beginning on the arms in half the cases, and on the trunk, neck or face in the rest. By successive crops it may spread over a considerable part or even the whole of the body, pretty evenly distributed, and sometimes tending to form circles or segments of circles.

The papules are acuminate, pin-point sized, and bright red, and these characters may be preserved to the end. They usually remain discrete, but sometimes coalesce into patches. Many papules are crowned with small vesicles and pustules and have a red areola, sometimes half an inch in diameter. A few bullae sometimes appear. The rash rarely itches to any degree; it lasts from a few days to a week or so. In some few cases the vesiculo-pustular cases last with much itching, the eruption coming out in crops for weeks and months. Tyson has described a case of vaccinia herpetica, or generalized vaccinia, with umbilicated pustles all over the body of a child six months old. Bowen has seen six cases of bullous dermatitis. Impetigo, furunculosis, cellulitis, and erysipelas are not uncommon.

Inoculation with syphilis or leprosy is now very rare. Vaccination has very little influence upon intercurrent skin disease. Certainly absolute cleanliness both of the instruments and the parts should be employed. Asepsis, however, can be carried too far, and when we hear of washes of germicide soap, alcohol and solutions of corrosive sublimate, 1:2,000 being employed, we may not unreasonably fear that the virus itself will be rendered inert by such precautions. The shields which have been so extensively employed this autumn have served to retain moisture and keep in the secretions, thus acting as a cultivation house for all pathogenic germs. They have at present nearly fallen out of favor but have their place. As a protective for the first few days a shield is almost indispensible, but as soon as the vaccin virus has invaded the system, as shown by the red and infiltrated areola, the shield should be cast aside and antiseptic dressings with frequent changes should be practiced. Nothing can be lost by such dressings at this stage an much annoyance and danger may be avoided. The physician who vaccinates his patient and then sees him no more is subjecting him to a real danger, and especially when the operation is performed on the leg, where dust and dirt of all kinds are so apt to accumulate.

Lavage of the Stomach in the Treatment of Constipation.

Spivak (Journal American Medical Association), Lavage is indicated as a therapeutic measure in, 1. constipation due to excessive acidity of the stomach; 2. constipation due to gastric atony; 3. diarrhea resulting from the excessive production of mucus in the stomach; 4. obstruction of the intestines from whatever cause; 5. habitual constipation.

By lavage we relieve the upper portion of the bowel from the pressure and weight exerted by the contents of the stomach relieving the general tension.

His preliminary conclusions are as follows: 1. A certain percentage of individuals suffering from habitual constipation are apt to have a spontaneous movement of the bowles the following day after the stomach has been washed for the first time; 2. the majority of such patients will eventually recover the normal function of their bowels, if lavage is continued daily for two or three weeks,

and later at greater intervals; 3. the best results are obtained from using cold water, or hot and cold water alternately; 4. the best time for such lavage is one hour before breakfast.

Relation of the Prostate Gland to the Impregnating Power of the Spermatic Fluid.

George Walker (Johns Hopkins Hospital Bulletin) reports a series of experiments in which the prostate gland was removed from a number of white rats, and the effect of this procedure noted. He concludes an article as follows:

1. That a removal of the anterior lobes of the prostrate gland in rats has no effect on breeding; but in a certain number it diminishes the fecundating power; and in a small number it is destroyed entirely.

2. Complete excision has a very marked effect on fecundity, reducing it to almost nil when the gland is entirely removed.

3. Partial or complete removal of the prostate has no effect upon the sexual desire and capacity.

4. Complete removal of the gland in the adult animal has no effect on the histological structure of the testicles. Complete removal of the prostate in the young animal has no effect on the histological structure of the testicle. Complete removal of the prostate in the young animal has no effect upon the subsequent development of the testes.

Differential Staining of Blood Films and Malarial Parasites.

J. H. Wright (Jour. Med. Research, Jan., 1902) claims that it not only gives a differential staining for the chromatin and cytoplasm of malarial parasites, but as a general staining method for blood is superior to Jenner's in that it sharply differentiates the neuclei and cytoplasm of the lymphocytes and large mononuclear leccocytes as well as the granulations of the leucocytes in general. For the preparation of the staining fluid one per cent. of methylene blue (Grubler) is added to a one-half-per-cent. aqueous solution of sodium bicarbonate in which the bicarbonate is thoroughly dissolved. This mixture is then steamed in an Arnold steam sterilizer for one hour, counting from the time after "steam is up." When cold the mixture is poured into a large dish or flask and a sufficient quantity of a 1-1000 aqueous solution of eosin added until the blue color is lost and a purple color appears with a scum of a yellowish metallic luster on the surface. During the addition of the eosin the mixture should be constantly stirred or shaken. When the addition of the eosin is complete a finely-granular black precipitate appears in suspension in the mixture. This is removed by filtration without washing and when thoroughly dry is added to pure methylic alcohol to saturation. This saturated solution is filtred and to the filtrate is added 25 per cent. of methylic alcohol. This dilute alcoholic solution is the staining fluid. The technic for using the stain is as follows: (1) Make films of the blood, spread thinly and allow them to dry in the air. (2) Cover preparation with the staining fluid for one minute. (3) Add water, drop by drop, until the mixture becomes semitranslucent and a yellowish scum forms on the surface. Allow this mixture to remain on the preparation for two or three minutes. (4) Wash in water until the film has a yellowish or pinkish tint in its thinner or better spread portions. (5) Dry between filter paper and mount in balsam.

Auto-intoxication and Disease from a Practitioner's Standpoint

Beverley Robinson, (Medical Record, Feb. 15, 1902) believes that the specialist is disposed to over-emphasize intestinal self-intoxication as a cause of neurasthenia, and to medicate with drugs in such form as to be soluble only in the intestine and not at all in the stomach. He does not believe in changes in a limited portion of the digestive tract, as sepearted from the rest. Drugs must be in solution to be useful, and they must affect the stomach favorably, and not solely the intestines. There are three drugs which the author would support with unqualified praise in numerous cases. The first is creosote, properly combined, and in minute repeated doses; the second is wood charcoal, and the third, the subnitrate, and perhaps other salts, of bismuth. Phosphoric acid is useful in checking intestinal fermentation and decomposition directly, and as a useful tonic to the nervous system. Static electricity is useful in those cases with a torpid engorged liver, due to alcohol or over-eating.

A Case of Appendicitis.

Frank. W. Garber (Thera. Gazette,) reports a case as follows:

The case which I wish to bring to notice is that of a boy of 5 years, whose previous history had been without pathological event. He was taken suddenly with pain in the abdomen which was referred to the umbilical region. There was vomiting and some loosness of the bowels; the face was somewhat drawn, and had the expression of one suffering pain below the diaphragm. There was at the time of my first call no tenderness over the appendix at the pathognomic point. There was a slight elevation of temperature. The picture was very

suggestive of appendicitis, but I could not determine positively. The next day there was marked improvements, and the child's parents sent me word that it would not be necessary to see him. Three days latter the mother called at my office for medicine, stating that the boy was not doing well, and that he still complained of pain. Fearing that the trouble was appendiceal,I suggested that I see the boy instead of sending medicine. I found that the picture of appendicitis had grown more distinct during my absence, this being the fifth day of the disease. The abdomen had become somewhat tympanitic; the child had more fever; the face was paler; the bowels were moving frequently, and the evacuation was an almost clear and glairy mucus, a feature I had before observed in those cases of appendiceal abcess where the abscess is situated low in the pelvis. There was difficult urination; there was little or no tenderness over McBurney's point. Under chloroform and by rectal bimanual palpation I was able to outline a small tumor lying low in the pelvis on the right and near the bladder. Immediate operation was advised and accepted. An oblique incision over the mass was made, beginning just above Poupart's ligament and extending upward and outward about 2½ inches. Close to the bladder and deep in the pelvis a small and fluctuating tumor was found connecting with the appendix above. After walling off carefully the mass was incised and about two ounces of thin and not very offensive pus was evacuated. The mass was adherent to the bladder, into which it would soon have spontaneously evacuated, as the bladder wall was so thin as to pout into the abscess cavity after it had been wiped out. After mopping the pus cavity thoroughly it was packed with iodoform gauze. No attempt was made to remove the appendix.

Recovery from the operation was without incident, but on the third day following it the little patient developed a well marked case of measles. Under the strain of the frequent coughing accompanying his newly developed trouble the already weakened wall of the bladder gave way, and for over a week he passed all his urine through the fistula thus formed. This necessitated frequent changes of dressing and added greatly to his distress. The little patient, however, met all these trials with fine stoicism and an obedience to nurses which was rewarded by final and complete recovery. In four weeks from the time of operation the patient was discharged.

Diagnosis of Abdominal Disease.

Jackson (Boston Medical and Surgical Journal, Feb. 27, 1902,) speaking of pain, he says, nothing is less reliable, but every attack must receive our most careful attention, though it may not be a symptom of serious import. Nausea and vomiting are of the greatest importance and should be carefully considered in the history of any abdominal case. It is rare to find any acute disturbance of the peritoneum without their occurrence. On the other hand these disturbances are not so common in colic or abdominal disturbances from other causes. Another point of value in the history is the occurrence of constipation, obstinate in character, in a patient who has not previously suffered from this symptom. Among the physical symptoms the general appearance may be of much importance. The bright mental condition is in strong contrast to the hebetude seen in many febrile conditions, the pinched and anxious facies, the absence of, or the limited excursion of diaphragmatic respiration and the bending of the knees to relieve extra abdominal pressure. Exploration should be made if there is any suspicion of tumor. A pulsation transmitted to the abdominal wall at or below the umbilicus is always suspicious of tumors interfering with the aorta. We should always look also for peristaltic contraction of the bowel in the diagnosis of intestinal obstruction. When present it is a sign of much importance. It is not usually difficult to make a diagnosis of excessive fat in the abdominal wall, but mistakes are possible and the simplest method of determining is to take up within the two hands as much as possible, which must be subcutaneous. Tenderness must be sharply distinguished from pain and is of paramount importance. When spasm is added the surgeon must have strong evidence to the contrary to justify him that there is no acute local inflammation. In many cases of appendicitis the evidence of tenderness and spasm at McBurney's point clinches the diagnosis. There is one place in the epigastrium, just below the xiphoid cartilage, where there is always tenderness or a little discomfort, and this should be remembered. Spasm is of greater importance than tenderness, and the absence of these two symptoms in cases of colic or abdominal pain are most reassuring that the trouble is not dependent upon any inflammatory process. In children it is always the best plan to have the mother or nurse press fairly hard in various parts of the abdomen, and especially over the appendix, to determine whether there is tenderness. We must remember that hard masses of feces may stimulate tumors and are often retained in the intestine, though the patient may have had many small loose dejections. A simple diagnostic method of much value

in determining between small pleural effusions and enlargement of the liver, or some inflammatory process between the liver and the diaphragm, subdiaphragmatic abscess, is to determine accurately by percussion the upper line of dullners in the chest wall. Then let the patient take a full inspiration and hold the breath. Continue a light regular percussion while the patient inhales and note carefully whether there is any change in the percussion note during the full inspiration. If the dulness is due to fluid in the pleural sac there will be but little change in the upper area dulness, whereas, if the mass be beneath the diaphragm, good pulmonary resonance will be found at the point previously dull as the expended lung will extend downward over the sub-diaphragmatic mass. This method will usually demonstrate the presence of an enlarged liver, or the rare and always obscure condition of acute suppuration between the liver and diaphragm. The sign which is of greatest importance in the diagnosis of intestinal obstruction, is the significance of an empty rectum as suggestive of intestinal obstruction, when there has been no movement of the bowels for several days. Of course, its value is greatly increased if, as is usually the case, cathartics and enemata have been given previously without satisfactory results.

Albuminuria from a Life Assurance Point of View.

Springthorpe (Australasian Medical Gazette) points out that the exact composition of albumen itself is still undetermined and gives no less than four different classes of "albuminuria," in each of which the composition of the product which coagulates by heat and with nitric acid is essentially different. It need scarcely be said that if the exact composition of the albuminous material is known, it is still necssary to determine, as far as possible, what its occurrence in the urine means, and whence it comes.

The author gives three different groups of cases which, in a practical sense, are certainly useful, but which do not go to the root of the matter. The writer says that changes in the blood-stream (? in its rate) may temporarily damage the filtering or secreting surface, so that serum and othor albumens may pass through it; and to this cause he assigns the appearance of the cyclic or intermittent forms of albuminuria. The author says nothing of the action of cold on the surface of the skin as causing functional albuminuria, to which influence we should be far more inclined to assign the appearance of albumen in the so-called functional and cyclic cases. Damage to the filtering and secreting structures of the kidney may certainly cause temporary albuminuria; but applied in a general sense to a great variety of conditions in which temporary albuminuria appears, such assumed causes become nothing more than a confession of our ignorance of the real nature of the agency.

The author remarks that in granular kidney no albumen may be present for long periods. This is cestainly the case, and it would be well if the fact were more generally appreciated. Much space is devoted to the consideration of the tests for albuminuria. The author recommends the acetic acid and potassium ferrocyanide test. His experience is that this test is the most satisfactory of all, not excluding cold nitric acid.

The practical observer will at once note with regard to mucin the cloud is developed from above downwards, and that the appearance of urates is quite different to that of albumen, and further, that the heat test, applied almost automatically, at once settles the question as to the nature of the capacity. We are strongly of opinion that no test hitherto discovered is superior to cold nitric acid, and very few are equal to it in delicacy. Regarding the significance of albuminuria from the life assurance point of view, a very complex problem presents itself for solution. Considering the very numerous causes of the condition there can be no doubt at all on this point. We question if at the present time it is possible to give an absolutely definite opinion on a given "functional" case, and certainly not unless repeated examinations of the urine have been made and the whole of the organs thoroughly examined. The author thinks that in difficult cases the urine should be submitted to expert analysis. Such lives may be safely recommended, with additions to premium and with insistence upon re-examiaation at definite intervals.

Hepatic Inadequacy.

Dr. Burney Yeo, (Indian Medical Record, Feb. 5, 1902) at the meeting of the Balneological and Climatological Society, said: By hepatic inadequacy is meant such defect or disturbance of the functions of the liver which, while stopping short of giving rise to known diseases of the liver, leads to impairment of general health. He includes in this category "irregular gout." Dr. Yeo does not believe that most of the phenomena of gout are due to uratic precipitation in the tissues; but that they and the over-production of uric acid in the system are both due to a disordered hepatic metabolism. Much harm has been done by

accepting purely physiological and chemical research when it does not accord with clinical experience; for instance, he quotes the value of calomel as a cholagogue, which drug was started not to be a cholagogue by a physiological research some thirty years ago, and so for a time fell into undeserved discredit. He believes in the value of sodium salts, such as the carbonate and chloride, as promoters of the healthy function of the liver, favouring metabolism generally; their value is shown by their curative effects in gout and dietetic glycosuria. The value of Ems or Vichy and other waters are probably due to sodium salts, which act on the gastric, intestinal and hepatic functions, quite irrespective of any direct solvent action on the sodium biurate, which, it is well known, may be deposited in joints, or as tophi, without giving rise to any gouty symptoms. The symptoms of hepatic inadequacy are pallor of the fæces, which are often very offensive, and there is constipation or diarrhœa, possibly enlargement and tenderness of the liver. Muddy complexion and yellowish conjunctiva, with loss of appetite, and a bitter taste in the mouth. Urine high coloured and of high speeific gravity, extremely acid, and showing a marked colouration with nitric acid heat. He finds no symptoms of disease of the kidneys. These symptoms may be produced by alcohol, chill of the skin interfering with its functions, etc., and in some fruit may have a similar result or even may precipitate an attack of gout. The symptoms attacking seaside visitors are of the nature often of hepatic inadequacy, and may be generally treated by calomel and salines, with some carbonate of sode and nux-vomica.

Bracing climates, such as the Upper Engadine, may also cause similar attacks in those predisposed. Dr. Yeo believes strongly in very simple diet in these cases, and has seen good results from a diet of pounded lean meat. Claret he considers most risky, and prefers dry old port from the wood, diluted with water.

Insanity and the Poisons.

MacLean (St. Paul Medical Journal, Feb., 1902) says that man is the product of heredity and environment. This applies to body but no less to the mind. The human brain is the organ of rational mind. Both depend on the character of the nerve cell, which may be high or low as a mental instrument. Environment is a rather extraneous influence upon the brain cell or brain mass. The efficiency of the brain will depend upon the natural constitution of the cell and the influences of its environment. Poisons may be brought into the system from without. Iodoform may cause irritability and mental disquiet and finally a nerve storm, with later hallucinations. So with other poisons, as lead, which also tends to induce sclerotic changes and sequent malnutrition. Cocain, opium and alcohol produce moral depravity. Darwin states that the family of drunkards do not extend beyond the fourth generation. One-tenth to one-third of the insane are due to alcohol. Syphilitic insanity is also due to deleterious effect of a poison introduced into the system. Society is not awake to this, yet 80% to 90% of paresis is due to syphilis. Mental disturbances are more frequent than is supposed even in the florid stage. Syphilitic arteries is a far-reaching malady, through obliteration of lumen of vessels. Furious delirium, short-lived, followed by coma, delusional insanity, various forms of paresis with incomplete palsies, dementia not attended by paresis but by epileptic attacks, and epilepsy are the most frequent mental disturbances caused by syphilis of the brain. Of autogenetic poisons those developed along the alimentary canal are certainly causative of insanity, as are the toxins the result of Bright's disease, diabetes, putrefractions, defective metabolism through alteration or deficiency of glandular actions, etc. The forms of psychoses resultant from autointoxications are hallucinatory—confusional and confusional-maniacal.

Tuberculosis of Peritoneum.

W. Webb (Amer. Surg. & Gyne., vol. 15, no. 4) says:

1. Tubercular peritonitis is a surgical disease, and should be treated surgically, and not medically, for the simple reason that when treated medically patients die, but when treated surgically a cure is effected in a large proportion of cases, and a marked improvement follows in all.

2. The proper treatment is abdominal section rapidly and carefully performed.

3. Danger from operation is very slight, the mortality being less than 3 per cent.

4. Of the many theories advanced to account for the cure in these cases, the antitoxin theory of Gatti seems to be the most rational. It is not unlikely, however, that the good results attended are due to a combination of several of the various causes assigned.

5. Sepsis is not apt to occur on account of the pathological changes that have taken place in the peritoneum.

6. Tuberculous infection of the wound does not occur.

7. Antiseptics are useless and drainage, should not be employed if it can be avoided, as it is apt to leave a permanent fistula.

8. Most of the deaths after the operation have been due to a general tuberculosis or tuberculosis of some other organ.

9. The successful treatment of this disease depends upon the diagnostic ability, good judgment, technic and skill of the man behind the knife.

Treatment of Gout.

M. Heineberg (Medical Times, Feb., 1902) believes that the most rational and most efficient treatment is the regulation of the diet. Elimination of nitrogenous and albuminous principles which result in the formation of urea or uric acid is especially important. This excludes "butcher's meat," also eggs and cheese. Milk, butter, fresh vegetables and fruits are allowed. Oysters and lobsters can be partaken of moderately and poultry occasionally. Rice, potatoes and sugars are often interdicted by authorities, but may be allowed in reasonable amount. The wines which contain a considerable quantity of both alcohol and sugar, such as port, sherry and Maderia. Sweet champagnes also quickly produce gout. Whisky seems to have little effect upon the disease. Stout, porter and strong ales are a factor in producing the disease and even beer may have an influence. The drugs which are used in treating the disease strive to eliminate the poison by the kidneys or bowel. For this purpose the various alkaline waters are employed. Colchicum, the classical remedy, is efficient through its action upon the liver. The following combinations of the drug are very good:

℞ Pillulæ hydrargyri,
Ext. rhei,
Ext. colocynth. comp., aa. gr. x.
Ext. colchici aceti, gr. xv.

M. Make into 15 pills. Sig. One every three hours till relieved.

℞ Liquor potassæ, 3ss
Ext. taraxaci, 3i
Tinct. colchici, ♏x
Syrupi, 3i
Aquæ pimentæ ad., 3x

Sig. One dose.

After the bowels have moved thoroughly, give this mixture:

℞ Sod. salicylatis, 3iv
Sod. nitratis, gr. cl
Pot. iodidi, gr. cxx
Vin. colchici rad., ♏xc
Syr. gaultheriæ, 3v

Sig. One tablespoonful in half glass of water twice daily for a month.

Treatment of the Nasopharynx in Scarlatina.

Seibert (Archives of Pediatrics) says that one of the gravest dangers to scarlet fever patients consists in the invasion of the mucosa of the nasopharynx by streptococci and their associates. The infected tonsils may be washed over by an antiseptic solution if swallowed every hour in a reclining posture, and thus a superficial disinfection of the visible pharynx may be accomplished. He has found the following mixture to be the best for the purpose:

℞ Tincture of iodine, 30 minims.
Potassium iodide, 15 grains
Distilled water, 4 ounces.
Carbolic acid, 10 drops.

M. A teaspoonful every hour.

This may safely be given night and day for four or five days successfully to children of one year of age, as well as to adults. An experience of twenty years has failed to produce a single carbolic intoxication with this mixture. Now and then patients will complain of gastralgic pains after taking this solution for a day or two, due, no doubt, to artificial hyperacidity induced by the contact of this fluid with the stomach. Mild iodism, manifested by a slight watery discharge from the nose, is not infrequently noticed, but disappears usually after a few days. To clean and to disinfect the infiltrated mucosa in scarlatinous masopharyngitis, the author has used irrigations with 1 to 5 per cent. warm solutions of ichthyol, repeated every six hours. A half-pint is allowed to flow through the nares and the nasopharynx from a fountain syringe suspended about three feet above the patient. When there is obstruction of the passageway between nose and throat, irrigations will be of no use. In this case make local applications of a fifty-per-cent. resorcin solution, wind a cotton plug around the curved end of a wire, dip it into the solution, gently pressing it against the neck of the bottle to get rid of superfluous fluid, which might run into the larynx, and then introduce it over the handle of a dessertspoon into one side of the nasopharynx. The soft palate will instantly contract and press the solution out of the cotton, thus spreading it over the inner surface of the nasopharynx in the course of a few seconds. The cotton, thus spreading it over the inner surface of the nasopharynx in the course of a few seconds. The cotton is then withdrawn and another fresh cotton plug introduced on the other side of the uvula and withdrawn instantly. No force and no swabbing are to be employed. This treatment is most efficacious and harmless.

The Possibility of Treating Mitral Stenosis by Surgical Methods.

Brunton (The London Lancet, Feb. 8, 1902) contends that "the good results which have been obtained by surgical treat-

ment of wounds in the heart embolden one to hope that before very long similar good results may be obtained in cases of mitral stenosis." He thinks the first question that arises is whether the mitral orifice should be enlarged by elongating the natural opening or whether the valves should be cut through their middle at right angles to the normal opening. Dr. Brunton believes the heart may be exposed sufficiently by removing a portion of the ribs, the lungs might be pushed aside in order to open the pericardium. In operating upon the living heart, he says the knife should be introduced into the left ventricle during diastole, as one is less likely to wound the opposite wall of the ventricle and that the pericardium should not be closed immediately after the operation in order to allow any blood, which might ooze out through the wound, to flow away instead of being retained in the pericardial cavity. Experiments upon animals have shown that small wounds of the ventricle are followed by little hemorrhage, on the other hand, a needle puncture into the aurifice gives rise to much bleeding. He states that "the risk which such an operation would entail naturally makes one shrink from it, but in some cases it might be well worth while for the patients to balance the risk of a shortened life against the certainty of a prolonged period of existence which could hardly be called life, as the only conditions under which it continued might to them be worse than death."

Hemorrhagic Typhoid Fever.

Longenecker and Ackerman, report a case of hemorrhagic typhoid fever ending in recovery. The patient was a young woman, 24, and the hemorrhages set in on the twentieth day with epistaxis. Subsequently, there were hemorrhages from the mouth, conjunctivæ, bowel and bladder. The doctors note that although many drugs have been recommended for the hemorrhagic diathesis, it is really a question whether more than a very few are available for this condition. Ol. terebinth seems to hold a firm place. Not only does it seem to control hemorrhage, but it may correct the condition leading to the hemorrhage; in other words, it is regarded as a very good prophylactic remedy in typhoid fever and in other hemorrhagic conditions.

Calcium chlorid, in condition of slow coagulability of the blood, favors more rapid coagulation. In hemorrhagic conditions when this is more often lacking, it will reduce coagulation time. The usual dose is 20 gr. 4 to 6 times a day. As Hamburger points out, this coagulation-producting condition may be only temporary. This seemed to be apparent in the case reported, in which there was a relapse of the bleeding after withdrawal of calcium chlorid and turpentine. As Hamburger says, the only way to ascertain the action of calcium chlorid is by repeated coagulation tests.

In this case gelatin was used to its fullest limit. As a mouth wash; as much as she could eat of orange gelatin; and per rectum with salt and whisky as much as could be tolerated.

Normal salt solution for lowered blood pressure, or to stimulate a lagging and weak heart may be called for, as after any profuse hemorrhage one or two points thrown into the circulation, either intravenously or by hypodermoclysis, will often be followed by a quick response.

Heart stimulation is usually demanded. Whiskey, ammonia, or strychnia will usually meet the indicatian.

Adrenalin chlorid solution is now demanding attention. In this case it was used late in the disease, and it is difficult to say just how much good it produced. In diseases of the vessel walls it would undoubtedly be of great service. If the fault is in the blood itself the use of this agent might not produce much or any good, for the bleeding gradually decreased after its local use, although a lessened oozing continued for several days during its use.

The local use of astringent washes, such as tannin, tr. chlorid of iron, peroxid of hydrogen, or nitrate of silver, all have their uses. But with any or all, the importance of cleanliness in the mouth must be borne in mind. The tongue rapidly becomes coated, and the breath very foul from the rapid decomposition of the blood, or from other causes, thus calling for frequent cleansing. Spongy and tender gums especially need attention.

MISCELLANEOUS.

American Medical Association.

The Committee on Pathologic Exhibit for the American Medical Association is anxious to secure materials for the coming session at Saratoga, June 10th to 13th inclusive.

This exhibit was accorded much praise and comment during the session at Atlantic City and St. Paul respectively where were collected valuable exhibits from all parts of the country. The materials included not only pathologic specimens but the allied fields, bacteriology, hæmatology, physiology and biology were well represented.

It would also be desirable to secure exhibits of new apparatus, charts, etc., used

by teachers of pathology and physiology in medical colleges.

This exhibit has already become a permanent feature of the annual sessions of the American Medical Association and the Committee is desirous of securing its list of exhibits as early as possible and to this end asks those having desirable materials to communicate with any member of the Committee.

To contribute to the value of the work, it is suggested that as far as possible each contributor select materials illustrative of one classification and by such specialization enhance the usefulness of the display.

Those lending their materials may feel assured that good care will be given their exhibits while in the hands of the Committee and due credit will be given the published reports.

Very respectfully,

F. M. Jeffries, 214 E. 34th St , New York City.

W. A. Evans, 103 State St., Suite 1403, Chicago, Ill.

Roger G. Perkins, West. Res. Med. School, Cleveland, O.

Committee on Pathologic Exhibit, American Medical Association.

Medical Society of the Missouri Valley.

This association held its semi-annual meeting, at Lincoln, on March 20, with a large and representative attendance, Dr. Richard C. Moore, of Omaha, president in the chair. Chicago was represented by Drs. Moyer, Findley and Coulter. Three sessions were held, and sixteen interesting papers read. The Medical Herald was again made official journal of the Society. After the evening session, the members were invited to the banquet hall of the Lindell Hotel, where a sumptuous repast awaited them. The next annual meeting will be held in Sioux City, Iowa, September 18, 1902.

Idiot and Imbecile Children.

The cause of idiocy and imbecility are many and varied, according to Robinovitch (Journal of Mental Pathology). Subtle cause, such as maternal impressions during pregnancy, must not be accepted without searching for more substantial underlying causes. Hereditary degeneracy, psychoses, and psychoneuroses of the parents are some of the causes. Acute infectious and contagious diseases of the mother during pregnancy are causes, but additional search must always be made for underlying causes other than these. Syphilis is a cause. Autoinfection, myxedema, is a cause. If the acute contagious and infectious diseases during childhood leave the child an idiot or imbecile, that child's heredity must be well scrutinized, as the latter is most certainly the underlying cause. Alcoholism of the parents is the major cause responsible for the birth of idiots and imbecile children, according to the study of the cases cited. Alcoholism of the parents not only causes idiocy and imbecility of the offspring, but also acts as a strong factor in reducing the birth rate and increasing the death rate. Children of alcoholic parents, if not idiots or imbeciles, are apt to be invalid in many other ways. Children of alcoholic parents frequently die in early infancy of meningitis.—*Monthly Cyclopedia.*

Treatment of Vomiting in Pulmonary Tuberculosis.

Pegurier (Journal des practiciens, April 27, 1901) recommends 1, calming the excitability of the gastric mucous membrane by means of small pieces of ice swallowed after meals, or by the administration of certain anæsthetic substances. The following formulæ may be used:

℞ Chloroform water, } of each 8 oz.
Orangeflower water, }

M. One or two dessertspoonfuls after meals.

Or

℞ Menthol, 3 grains.
Julep, 5 grains.

M. Two to four dessertspoonfuls after meals.

(2) The treatment of any local cause of the gastric irritability, such as complications involving the pharynx or epiglottis. The application of the following solutions is followed by temporary relief:

℞ Potassium bromide, 45 grains.
Glycerin, 1 ounce.

M. Apply to the pharynx before each meal.

Or

℞ Cocaine hydrochloride, 30 grains.
Water, 3 ounces

M.

Apply to the pharynx before the time of vomiting.

Or

℞ Diiodoform. 120 grains.
Cocaine hydrochloride, 1½ "
Morphine hydrochloride, ⅛ grain.

M. For insufflation.

In rebellious cases lavage of the stomach is indicated.—*American Medicine, February 8th.*

Navel Infection of the Newborn.

This subject is of interest on account of its somewhat frequent occurrence and the varied bacteriological conditions which underlie it. M. Wasserman (Virchow's Archiv., B. 165, H. 2) reports the study of 11 cases

occurring in the Charity Clinic at Munchen. All of the cases were fatal. On autopsy all showed the umbilical arteries full of thrombi and pus throughout their entire extent. In 7 there was present a pneumonia with hemorrhagic fibrinous exudation, accompanied by necrosis and abscess formation. Four were submitted to bacteriological examination. In all of these coverslip preparations of the pus and sections of the lungs showed a bacillus whose morphological appearances were identical with those of the bacillus pyocyaneus. Its cultural and staining characteristics also correspond with those of that organism. It was pathogenic for rabbits on inoculation, and at death was found in their heart's blood. It is evident that this organism was the producer of the navel infection. This work increases the evidence in favor of the opinion that under certain conditions the bacillus pyocyaneus is a pathogenic organism for man.—*Medical News.*

Early Diagnosis of Scarlatina.

M. H. Gillet (Jour. des. Practiciens, Oct. 5, 1901) says that an early diagnosis permits of an early prophylaxis. A rapid loss of weight during the first five days is one of the early symptoms, as is a great increase in the neutrophilic polynuclear leucocytes, which, on the appearance of the eruption becomes transformed into a hypoleucocytosis. A violaceous, erythematous stomatitis with considerable swelling is also noted early in the disease, or they may be small, irregular patches, of a whitish-bluish color, upon the mucous membranes of the mouth, as early as three days before the eruption appears. The sore throat of scarlet fever is described and a pharyngeal adenitis is spoken of by the author before the cutaneous symptoms appear. Diarrhea and general gastro-intestinal disturbances are frequent, and there may sometimes be a rash which anticipates the scarlatinal eruption.—*The N. Y. Medical Journal. Vol. lxxiv, No. 23.*

Puerperal Embolism.

Voigt (Centralbl. f. Gynak., No. 2, 1902) reports 3 cases of which 2 recovered: 1. Patient, 39, a 4-para, went into a hospital at Dresden for flooding in the eighth month of pregnancy. Placenta prævia was detected, and the finger could be passed into the os. No pains were present, and it was believed that rest would be sufficient to stop the hemorrhage; but for five days flooding continued so that it was determined to bring on labor, especially as the os had become wider. The placenta (central) was broken through with two fingers, version practiced, and one foot drawn down. The flooding at once ceased and strong pains set in; at the end of three-quarters of an hour the child, slightly asphyxiated, was delivered. The uterus contracted well. Within an hour after delivery a marked attack of embolism occurred with characteristic pulse and dyspnoea. Stimulants were used, and the symptoms subsided in nineteen hours. On the fourth day another attack occurred, a pulmonary infarct developed, with hæmoptysis. On the tenth the symptoms recurred; the bloody sputum contained elastic fibre. The dyspnoea and weak pulse did not subside entirely till the twenty-fourth day, and the patient was not discharged till the thirty-seventh. 2. In the second case the forceps, turning, and cranoclasty were practiced. One hour and a half after delivery an attack of embolism occurred; it subsided in twenty hours, but another attack took place on the second day. 3. In this case there was nothing more than lingering labor from uterine inertia, and delivery was spontaneous. An attack occurred seven hours later; it was temporarily relieved by stimulants, but within four hours another attack set in and proved fatal.—*British Medical Journal, Jan. 25, 1902.*

Fractures of the Pelvis Occuring During Labor.

Dr. U. S. Bird (American Journal of Obstetrics, January) records a case in which fracture of the pelvis occurred during labor. The patient was under Dr. Bird's observation for some time before delivery, which was several days overdue. Her history was negative, and her pregnancy was free from serious complication.

Dr. Bird was called about 10 p. m. Labor proceeded slowly. Pains were good, but she made little progress during the second stage. Between pains she rested, but during pains it was impossible to restrain her. The head came down on the perinæum, and for some time the scalp was visible without manipulation. Dr. Bird gave her ample time, but the pains were not effective. Toward the end of the time allowed her the accident under discussion happened. During a hard pain accompanied by violent movements, while the nurse and the doctor held the right thigh and leg, he heard a distinct, sudden snapping sound on the right side, but noticed no marked relaxation or mobility. At first he feared a parting of the symphysis, then a fracture of the femoral neck, but saw that neither had happened. Shortly afterward he applied forceps, and with some difficulty advanced the head suffciently to allow the second stage to be completed naturally about 4.30 a.m. A retained placenta re-

quired manual delivery. By this time Dr. Bird had forgotten the sound mentioned. On seeing her a few hours later, after changing, she felt well, but could not move because of a pain in her right groin. At once everything came back to him. An examination easily discovered a slight displacement of the fragments of a diagonal fracture, with mobility and crepitus in the right horizontal ramus of the pubes. Dr. J. S. Helms saw her and agreed in this. In their opinion it was a simple fracture, with no complication other than her puerperium. A seven-inch rubber adhesive plaster was passed snugly around the pelvis so as to make necessary pressure and avoid soiling. A canvas cot with a hole under the buttocks was used, but was the same day replaced by a rubber-covered mattress cot. As the hole was not well guarded, the mattress became soiled and offensive. A second cot was procured, and both were more carefully prepared, being covered with rubber sheeting and the holes well bound with the same. Two pieces of cotton cloth were spread over the head and foot parts, respectively, and two extra pieces of rubber sheeting were so placed as to protect everything else about the hole. The soiled articles could thus be removed as necessary, with a minimum of disturbance. About once weekly she was changed to the extra cot, which had meantime been cleaned and aired.

As regards the fracture her convalescence was uneventful, but her puerperium was an anxious one.

Toward the end of the fourth week passive motion of the legs and thighs was used especially to prepare her for the bedpan and for using a bed in place of a cot.

About the middle of the fifth week the plaster bandage was removed without inconvenience, and she was placed in bed, greatly to her relief. Massage and passive motion, with cautious active motion, were continued. Her knees were quite painful. During the sixth week she sat up in a chair, and by the seventh week she was walking. On the first sitting up there was coccygeal gain. On December 20th the patient was well, presenting no symptom of her injury; she walked naturally.—*New York Medical Journal, March 1, 1902.*

An Outrageous Verdict Against a Physician.

We learn from the Philadelphia Medical Journal for February 22d that a physician of that city recently vaccinated a child with, as he alleged, all aseptic precautions, and that four weeks later, the vaccination lesion having healed in the mean time, the child was attacked with impetigo contagiosa, a trival affection, and subsequently with diphtheria, of which it died. The physician was sued for damages, and the jury found against him. "If such a verdict is to stand," says our contemporary—and we quite agree with it—"it means that every physician is in jeopardy, and that such cases are not to be determined according to the known facts of medical science.—*New York Medical Journal.*

The Health of Havana.

Major Gorgas last report [January, 1902] shows what extraordinary success continues to attend the sanitary work of our government in Cuba. During the last nine years of Spanish rule [1890-1898] the minimum number of deaths for December occurred in 1893, when there were 517 deaths, with a rate of 28.32. The maximum was 1924 in 1897—a rate of 100.08 per thousand citizens.

During the three years of American occupancy there were 534 deaths in December, 1899, 485 deaths in December 1900, and 463 deaths in December 1901, showing a progressive decrease, and placing Havana in the class of healthy-cities of the civilized world, having an equal population. The city, it must be remembered, has been increasing in population.

Not a case of either yellow fever or smallpox occurred last December. The last case of yellow fever occurred in September, 1901.

Major Gorgas considers the likelihood of yellow fever occurring this season about over. Still, the mosquito work is to be kept up. For this purpose a "Stegomyia brigade" works in the city, and an "Anopheles brigade" works in the suburbs. Thus an official war is maintained against the pests. The matter most deserving of comment is the entire disappearance of yellow fever during the three months, October, November, and December. This has never occurred before in the history of Havana. Major Gorgas is evidently convinced that the mosquito is responsible for the disease.

What a record is this to the credit of our government! And how it transcends in importance even the tariff on sugar and the other problems that vex our statesmen in Washington.—*Philadelphia Med. Journal.*

Stone in the Bladder in Children.

Changes in the urine produce stones independently of the patient's age. M. F. Porter (Annals of Surgery, December, 1901) reports a case of one in a female child four years old. The attacks were for a time considered of intestinal origin and la-

ter, after careful inquiry and observation, of renal origin. Soon after this stones were passed with the urine. The trouble began when the baby was only six months old; during the next two years she had a great deal of trouble of the same kind and passed in all perhaps a teaspoonful of stones, ranging in size from that of a millet seed to that of a large grain of wheat. The attacks ceased and for a while she seemed to be without trouble. When about four years old the patient was seen again and it was learned that for some days while passing urine she had had attacks of pain in a way to suggest stone in the bladder. Under sounding the diagnosis was confirmed. The operation was done two days afterward and the stone removed by supra-pubic cystotomy. The stone weighed when thoroughly dry sixty grains and measured seven-eighths of an inch in width and three-eighths of an inch in thickness. The bladder was immediately sutured with catgut and the external wound with silkworm gut and a small wick of gauze left in the lower angle of the wound. This was removed in forty-eight hours. The bladder was drained for five days with retention catheter and the child was discharged from the hospital on the 12th day of April cured. At the time of operation she was three ysars, ten months and twenty-five days old.—*Medical News.*

Lactic Acid in Alopecia.

Balzer, in British Medical Journal, recommends the following lotion in the treatment of alopecia: After cutting the hair close to the scalp and cleansing with soap and water the following should be applied:

℞ Hydrargyri chloridi corros,	gr. iii	20
Acidi acetici,	gr. xv	1
Alcoholis,	ʒiv	120
Etheris,		
Sol. lavendulæ (alcoholic) aa,	ʒii	60

M. Sig: Apply locally once a day.

After drying, the head is rubbed with lactic acid, about 30 per cent.

Treatment of Passive Congestion of the Liver Due to an Incompetent Heart.

Dr. Bæmmier, as stated in N. Y. Medical Journal, recommends, in these passive congestions, cardiac tonics such as digitalis, caffein, spartein and strophanthus. The following combination is also employed by him in such conditions:

℞ Ext. ergotæ (aqueous)	ʒi	ʒ	75
Pulv. scillæ	gr. xiv	ʒ	
Hydrarg. chloridi mitis	ʒss	ı	88
Pulv. digitalis.	gr. xv	1	

M. Ft. pilulæ No. xl. Sig: One pill three times a day.

Treatment of Tetanus.

In recording the history of a case of severe tetanus, which was cured by intradural injections of tetanus antitoxin, E. Von Leyden (Deut. med. Woch.) briefly describes the development of what he considers to be the proper treatment of the disease.

Von Behring introduced the serum with the belief that, once introduced anyhow into the body, the results would be efficient and, therefore, it was at first injected subcutaneously. The unsatisfactory results led to its application into the vascular system, and later into the cerebral dural cavity, but without the hoped for results. It was found that in fatal cases of the disease, treated in one of these ways, the blood was incapable of producing tetanus in mice, although, when not so treated, it was capable of producing tetanus. On closer investigation, however, it was demonstrated that the spinal cord and the cerebro-spinal fluid contained tetanus toxin, and when these were injected into mice, the animals died of tetanus. Thus the subcutaneous or intravenous injection of antitoxin, although capable of rendering the toxin in the blood harmless, was powerless to attack the toxin in the cerebro spinal fluid.

Von Leyden's assistant, Jacob, therefore suggested and applied the method of intradural injection, and the trial case recovered. Other observers also attempted this method and Von Leyden finds reports of five cases which died and five which recovered. His new case had a temperature of 105·8 deg. F., a temperature which, he says, is always followed by a fatal issue in tetanus. The treatment was begun on the third day, and consisted in an intradural injection of five c.cm. of antitoxin (equal to about ¼ gram of solid antitoxin, and therefore about one-eighth of the usual subcutaneous dose) after 10 c.cm. of the fluid had been withdrawn, together with injections of morphine and the exhibition of chloral. The temperature sank on the same day to 101·3 deg. F., and on the next day to 99·3 deg. F. The Fall in the temperature he regards as a distinctly lifesaving result of the antitoxin. On the third day of treatment the injection was repeated. Of the other interesting points in the case he points out that [1] the patient had two years previously had a mild attack of "head" tetanus; this points to the inability of a given attack to protect against subsequent infection; [2] although working in a stable, no wound was present, and therefore the point of entry of the bacilli is unknown; [3] no tetanus bacilli were found, either in the vomit or in the blood. On the other hand, mice injected with his

cerebro spinal fluid slowly developed symptoms of tetanus, that is, after six days.—*Indian Med. Record.*

Inunction of Tuberculosis.

B. Bohden (Therap. Monat.) has for some years worked at the subject of inunction for tuberculous, scrofulous and other affections, and believes that he has obtained a good method of applying this treatment with the help of a new cod liver oil-iron preparation. "Dermosapol" is a neutral balsam of cod liver oil which possesses good qualities for the purpose of inunction and has a pleasant odor. It consists of 50 per cent. ol. jecoris aselli [finest deodorized cod liver oil] balsam of Peru, ol. cinnamoni, ol. citri, and ol. thymi, lamb's wool fat, glycerine, and an alkali. He claims to have reduced tuberculous glands of the neck to a very small size in a few weeks by rubbing it in. This he carries out twice or three times a day, after the skin has been well rubbed with brandy and then with water; 100 grams should suffice for 10 to 12 days. He says that it enters through the follicles of the subaceous glands, and reaches the lymph vessels without difficulty, and effects an action in [1] heightening the alkalinity and oxydation of the lymph apparatus, which is always lessened in scrofula and tuberculosis; [2] producing the peculiar changes in the cells and tissue elements as cod liver oil does; and [3] by the direct carrying of glycerine in the ethereal balsam into the lymphatic vessels. He uses further, potassium iodide, pernol-dermosapol, and formaldehyde-dermosapol for scrofula and for joint affections, lycoform dermasopol for skin affections, iodoform-lysol-dermosapol for surgical uses, and ichthyol-dermosapol for gynæcological uses, all with good results.—*Indian Med. Record.*

Physiology of the Ductless Glands.

John Rose Bradford says: Glands may be described as having one, or more than one, of these functions; they may elaborate an internal or an external secretion or an excretion, the distinction between the last two being usually quite as marked as between the first and second. Some glands confine their activity to the production of external, others, like the thyroid and suprarenal, of internal secretions. Further investigations may show still greater activities. Many glands have not only an external, but also an internal secretion, like the liver, the glycogenic function of which is essentially of the nature of the internal secretion. The kidney is the most obvious excretory gland, though there is a possibility of other functions. Any secretory gland may, under certain circumstances, excrete, as the salivary glands, iodide of potash, and the liver may exercise toxic substances. In pathologic conditions this may occur to a large extent. In many glands the phenomena are under the control of the nervous system, and this specially applies to external secretions, and is best observed in the salivary and sweat glands. There are also other glands where there is probably a nervous control, where we have no conclusive evidence of it. The relation of vascular change to secretion is intimate, though it is independent of the process of secretion. In case of internal secretion the nervous system acts less plainly, but there is evidence that it has its influence as in the case of the so-called diabetic puncture of the fourth ventricle affecting the liver. The external secretions are generally substances having a physiologic action, frequently ferments. The excretions of the gland are generally of no future use to the economy, though there are excretion processes with physiologic action besides, as, for example, the activity of the sweat glands influencing the bodily temperature. Internal secretions apparently are required for the physiologic activity of certain specific tissues of the body, and their existence is clearly established in the suprarenals and thyroid, which fact has thrown a great light on the pathology of diseases of these organs. There are, however, many things to be worked up in regard to this, for example, the function of parathyroids exophthalmic goitre. The removal of the parathyroid tissue experimentally, in spite of its small bulk, has the same fatal effects that follow complete removal of all thyroid tissue, though it does not seem to contain the colloid material, which contains the essential product of thyroid activity.

Bradford thinks, in spite of all difficulties, the most plausible explanation of Graves' disease is that it is due to hypersecretion of the thyroid. As regards Addison's disease, it is impossible to get a complete explanation, as the pathologic effects of the supra-renal are not known. The glycogen excess of the liver and the relation of the pancreas to glycosuria are also mentioned; but this only serves to show more clearly how complicated the problem of internal secretions are. Brown-Sequard, many years ago, considered that the kidneys had an internal secretion, and it does seem evident that the renal tissues may have some other function than those of mere excretion; but the evidence of an internal secretion is not conclusive. We cannot fully explain the pathology of uremia, and modern experimentation would seem to show that it does not result from the mere retention of morbid urinary constituents;

but that it is in some way associated with proteid disintegration. The possibility of internal secretions of the sexual glands is also mentioned, though other possibilities of the effects of their removal being produced in some remote or not understood way through the intermediation of the nervous system are also remarked upon.—*The London Practitioner.*

Pathological Alterations of the Kidneys in Pulmonary Tuberculosis in Reference to the Passage of Toxins and Tubercle Bacilli.

The following conclusions, based upon the study of the kidneys of persons who died of phthisis pulmonalis are made by G. D'Arriga (Centralblatt f. Bac. und Infekt. Krank):

1. In the kidneys of tuberculous persons, in the mild as well as severe forms, there are invariably present alterations in the vessels, in the interstitial substance, and in the renal epithelium.

2. In the early stages of pulmonary tuberculosis the lesions in the kidney are not severe, and seem to be due to the passage of the toxin through them. This tuberculous toxin attacks the vessels first, then the interstitial connective tissue and the epithelium.

3. If the tuberculous process in the lungs increases, in addition to the toxins, the tubercle bacilli are carried to the kidneys and there form colonies.

4. The circulatory and functional disturbances of the kidney, which are caused in the beginning by the toxin, facilitate the later colonization of the bacilli in the kidneys. In this manner the kidneys become *locus minoris resistentiæ.*

5. How the bacilli reach the kidney it is difficult to state, though it must be through the circulation. The bacilli were found in most cases in the glomeruli and in the interstitial connective tissue, but never in the blood-vessels or in their walls. These cases must not be confounded with acute miliary tuberculosis.—*Indian Medical Record*, July 29, 1902.

A Symptom of Cancer.

Although he finds that a small angiomatous growth frequently occurs in the skin of patients suffering from cancer, Leser [Munch. med Woch., December 17, 1901] states that he has not come across any literary notice of it. Freund and Hollander, it is true, recount the existence of such growths in the skin, but appear to lay but little stress on the occurrence. In many cases of carcinoma, he [Leser] found that a number of raised spots were present in the skin, chiefly of the trunk. These spots vary in size from that of the head of a pin to that of a lentil. They are blueish red or bright red in color, and do not fade on pressure. Their structure is that of angiomata. In order to ascertain the clinical importance of these spots, he and his assistant Muller inquired, from a material of 50 cases, first, whether the appearance of the spots is a usual accompaniment of carcinoma; secondly, whether they occur in either healthy subjects or in patients suffering from diseases other than cancer; and thirdly, whether their appearance is of diagnostic value. Of the 50 cases of carcinoma examined, in only 1 [a case of cancer of the œsophagus] were these angiomata absent. In 1 case the number of spots was 76, while the average of the 49 cases was 15. The first question was therefore answered by "Yes." In order to settle the second question, they examined 300 cases of surgical and other medical diseases, and found the angiomata only in subjects of advanced age in a few cases. He concludes from these observations, that they do not occur in healthy subjects or persons suffering from other diseases in early or middle life, and never, even in old age, in large numbers; and further that when found, in large numbers in youngish or middle-aged subjects, there is every reason to suspect carcinoma. The detection of a number of small angiomata in the skin of apparently healthy subjects may point to a beginning carcinoma. The abdomen appears to be the favorite seat of the spots in carcinoma uteri, and in other cancers the skin superficial to the seat of disease appears to be chiefly attacked. They do not appear to have any direct relation with the cancerous growth, nor are they influenced by changes in the vessels in the growth. Further investigation are needed to decide: 1. Whether the angiomata are present before the first symptom of a carcinoma is manifested, and increases in number as the growth develops; 2. whether they are present in those cases, as congenital abnormalities, in which a suitable soil for the cause of cancer exists; 3. whether they are to be regarded as results of the malignant tumor; or 4. whether they are merely frequent acccmpaniments of the disease. It is futher necessary to investigate the point if they accompany other forms of malignant disease beside carcinoma, for example, sarcoma. He points out how important it may be to have this sign in making the early diagnosis of cancer.—*British Medical Journal January 25, 1902.*

Treatment of Typhoid Fever.

Lieut. Col. G. Sterling Ryerson, M. D., of Toronto, later British and Red Cross Commissioner in South Africa, at a recent meeting of the Toronto Clinical Society ("Canada Lancet") reported that the treatment of typhoid fever was practically the treatment which is adopted in Toronto and everywhere else. Disinfection of the bowel either by means of listerine or boric acid, taken internally, or anemata, proved in many cases to be remarkably successful. Another form of treatmeut was that of starvation. They were starved for seven or eight days. He considers that in some cases it might be dangerous, because a number of men were exhausted when brought in. The medical officer in charge of these cases, and under whose supervision this plan of treatment was carried out, informed Dr. Ryerson that he had fewer deaths than in any other hospital in Blœmfontein. Dysentery: this was another very prevalent disease, and you hear of a great many men affected with this disease when they merely had ordinary diarrhœa. Dr. Ryerson said that during his service as surgeon with the troops engaged in the suppression of the North-West rebellion in 1885, he had observed the good effect of several drachm doses of listerine in treating camp diarrhœa and dysentery, caused by drinking the alkali water of the plains.—*Sanitarian, Nov. 1901.*

Wet Nurses.

The fashionable ladies in Paris are laboring under considerable difficulty in procuring wet nurses for their infants in consequence of a decree issued by the Chief of the Paris Police rendering it incumbent on wet nurses to give their own infants precedence in the matter of nourishment. Under certain circumstances the Prefect of Police grants permission for the child of a wet nurse to be partly bottle-fed, but this relaxation of the rules is allowed to such a limited extent that the practical effect of the new regulation regarding wet nurses in Paris is to secure the bringing up of the infants of wet nurses almost wholly by the breast. The pleasure-loving ladies of the leisured classes are face to face with a serious difficulty in consequence of the great scarcity of wet nurses, for they must either consent to their babies being brought up on the bottle, or else they must abandon their fashionable engagements and suckle their own offspring. Those who are acquainted with the ways of Parisian dames contend that the Prefect of Police will in the end find his order overruled.—*Press and Circular.*

Landry's Paralysis.

Clinical Review says: This is an acute ascending paralysis which usually terminate fatally a few days after its commencement. Dr. Henry M. Lyman relates a case of this kind, the patient being a man, forty-five years of age, very stout, an abstainer from alcohol, and free from syphilitic taint. He had been fairly healthy, until one day he began to feel numb and heavy in the feet and legs. This perversion of sensation traveled steadily upward, and in the course of three or four days he could not walk. He would not take to his bed, but sat propped up with pillows in a large invalid chair, where he remained until death on the eighth day. Tactile sensation was unimpaired, the bladder and rectum remained under control, and the mind was clear to the last. The paralysed muscles continued to react to the faradic current, and there was no evidence of atrophy. After the lower extremities were powerless to move, the paralysis of motion invaded the muscles of the abdomen, then of the upper extremities and thorax, finally reaching tha diaphragm and causing death by respiratory paralysis. The temperature throughout was 98 deg. F. Occasionally paralysis appears in the facial and cervical muscles, progressing downwards. Usually there is a fatal termination after a rapid course, but sometimes the patient lingers for weeks, or may even recover. The author believes that the disease is due to the presence of toxins in the blood, and that an antidote will be found for it, but for the present we should rely upon elimination of the hypothetical toxins, and upon agents that help to sustain the vital functions of the tissues. For this purpose 10 grains of calomel with 5 grains of soda and $\frac{1}{4}$ or $\frac{1}{2}$ grain of podophyllin may be given. This will clean out the whole gastro-intestinal tract and the liver. The patient should take a hot-air bath to promote elimination through the skin, this process being aided by the frequent administration of the herb tea and the spirit of nitrous ether. If the action of the heart is vigorous, phenacetin and a salicylate of rodium may be given in place of the old-fashioned diaphoretics; but if it is weak, the first prescription will give the best results. The circulation may be aided by the administration of liquor digitalis, and small doses of tincture of nux-vomica may be added, especially after the first stage of the disease has passed away. The diuretic action of the kidneys must not be neglected, and for this some form of mercury is indicated. It will be well to give a grain each of blue pill, Dover's powder, and quinine every six hours till the subsidence or fatal termination of the

disease. As soon as it is safe to discontinue diaphoretic treatment, the sudorifics should be replaced with iodide of potassium in 3 grain doses every four hours, or with ½ drachm to 1 drachm of syrup of hydriodic acid at similar intervals. This eliminative treatment must be carried on until convalescence is fully established, when tonics may be given. Frequently it is necessary to give laxatives and gentle aperients for a considerable time. If ergot is given, full doses of it should be administered every three or four hours, but the author has not much faith in the use of the drug for this disease, and prefers to use wet-cups or mustard plasters along the spine. Strychnine and belladonna would be more useful than ergot, but unfortunately they excite tissues that require rest. For this reason small doses of opium, or, preferably, codeine, are beneficial; they quiet the nervous tissues, and restrain over-action until elimination is complete, and then they should be discontinued. The treatment, then, may be summed up as follows: Elimination of toxins by the exhibition of cathartics, diaphoretics and diuretics; rest for the nervous system by the administration of opiates; and, if convalescence be established, the employment of tonics and restoratives.

Treatment of Acute Albuminuria After Scarlet Fever.

The following is recommended by Otto Maier, in the Post-Graduate:

℞ Pilocarpin hydrochlor, gr. i | 06
Infusion digitalis, 3iii 96 |

M. Sig: One teaspoonful every three hours.

He also recommends that a hot bath be given daily and a diet consisting of milk and ice cream. To promote elimination by the bowels gives the following:

℞ Hydrarg. chloridi mitis, gr. iiss. | 15
Pul. jalapæ, gr. ivss. | 28

M. Ft. chart. No. 1. Sig: One such to be taken twice a week.

Chemical Incompatibilities.

According to the Journal of the American Medical Association chemical incompatibility may be apparent in three ways:

1. By precipitation or the formation of insoluble compounds.

2. By the evolution of gas.

3. In some instance by changes in the color of the mixture.

The largest class is included in the formation of insoluble compounds by precipitation. The precipitation takes place when two salts, combined, form an insoluble salt by the interchange of radicals. The most important incompatibilities are included in the following table as arranged alphabetically by M. L. Neff, for the convenience of the practitioner:

1. Acids and acid salts are imcompatible with: alkalies and alkaline salts; alcohols (tinctures) and glycerin; hydrates and carbonates; glucosids; bases; relatively weak or volatile salts.

2. Alkalies are incompatible with: alkaloids and their salts; chloral; acids and their salts; relatively weak salts (halogens); metallic salts; calcium and magnesium salts.

3. Alkaloids and their salts with: alkalies; alkaline salts; halogen salts; tannic acid; phosphoric acid; boric acid and sodium borate; hydriodic acid; carbonic acid and the carbonates.

4. Arsenic is incompatible with: tannic acid; salts of metals, especially lead and silver; lime; magnesia.

5. Aqueous solutions are incompatible with: chloroform; metallic salts; essential and fixed oils; alcoholic tinctures; fluid extracts; resinous tinctures.

6. Hydrargyri chloridium mite (calomel) with: antipyrin; alkalies (lime water, etc.); potassium iodid; salts of iron and lead.

7. Carbonic acid and carbonates are incompatible with: iron salts; metallic salts (especially iron); salts of magnesium and calcium; acetic acid (syrupus scillæ).

8. Aqua calcis is incompatible with: salts of mercury (sometimes intentional); carbonates of alkalies; morphine and quinin salts.

9. Mucilages are incompatible with: alcohol and nitrous ether; iron; aqui plumbi; mineral acids.

10. Nitrous ether (sweet spirits of niter) is incompatible with: tincture guaiaic; mucilages; antipyrin; Ferri sulphas; most of the carbonates.

11. Oxidizing substances, including permanganates, chlorates, nitrates, etc., are incompatible with: charcoal; ammonium chlorid; tannic acid; sulphur; glycerin.

12. Phosphoric acid and the phosphates are incompatible with: alkaloids; metallic salts; salts of magnesium and calcium.

13. Tannic acid is incompatible with: alkaloids; metallic salts (especially iron and lead); arsenic; digitalis; albumins and gelatin.

14. Gentian preparations will produce a change of color in the mixture when combined with: iron salts; infusion of prunus virginiaæ; infusio cinchonæ comp.; silver nitrate; lead salts.

The following prescriptions will illustrate some of the chemical incompatibles of the foregoing list, as given by Scoville and Thornton:

℞ Hydrargyri chloridi corros, gr. i 065
Potassii iodidi, ʒiv 15
Aquæ, q. s. ad, ʒiii 09
M. Sig: One teaspoonful after each meal in water.

In this prescription potassium iodid precipitates red mercuric iodid, which is redissolved in the excess of potassium iodid. This prescription is sometimes intentionally ordered.

℞ Hydrargyri chloridi cirros, gr. i 065
Potassi iodidi, ʒii 7 50
Tinct. cinchonæ comp., ʒiii 90
M. Sig: One teaspoonful three times a day.

In the above the potassio-mercuric iodid precipitates the alkaloids in the cinchona, demonstrating that alkaloids should never be combined with soluble iodids or corrosive sublimate, which are powerful precipitants of the alkaloids.

℞ Hydrarg. chlorid, gr. iii 20
Tinct. cinchonæ co., ʒvii 210
Spts. ammon. arom., ʒi 30
M. Sig; One teaspoonful as directed.

This is both ambiguous and incompatible. If the first ingredient means corrosive sublimate, ammoniated mercury will be formed; if calomel. black oxid of mercury will be formed.

℞ Pot. bromidi, ʒiii 11 25
Chloralis hydratis, ʒii 7 50
Spts. ammon. arom., ʒss 15
Syr. zingiberis, ʒi 30
Aquæ, ʒiss 45
M. Sig: Take one teaspoonful and repeat in two hours.

The chloral is decomposed by the alkilines spirits of ammonia, chloroform being formed.

℞ Acidi nitro muriatici dil.
Spts. ammoniæ. arom. aa, ʒi 3 | 75
M. Sig: Two drops in water every four hours.

One of the above ingredients neutralizes the other.

℞ Argenti nitratis, gr. x 65
Cocainæ hydrochlor, gr. xii 75
Aquæ, ʒi 30
Silver chlorid is precipitated if dispensed as written. This may be prevented by using cocain nitrate in place of the hydrochlorate.

℞ Syr. scillæ, ʒi 30
Syr. senegæ, ʒss 15
Pot. bicarb., gr. xx 1 30
Tinct. opii, ʒii 7 50
Syrupi q. s. ad, ʒiv 120
M. Sig: One teaspoonful four times a day in water.

The syrupus scillæ contains acetic acid, which neutralizes the ammonia in the syrupus senegæ and causes effervescence.

℞ Ammon. carb., gr. xx 1 30
Spts. etheris nitrosi, ʒi 30
Tinct. ferri chloridi, ʒii 7 50
Liq. ammon. acetatis, q.s.ad, ʒiv 120
M. Sig: One teaspoonful every three or fonr hours.

The ammonium carbonate is incompatible with the ferric chlorid and spirits of nitrous ether, unless care is observed in compounding.

ß Quininæ bisulph. 3ss 1 88
Liq. ferri et ammon. acet. ʒii 60
M. Sig: One or two teaspoonfuls three times a day.

In this combination the insoluble quinin ascetate is precipitated.

Phosphorus in Rachitis.

H. Leo states [Therapie des Gegenwart, December, 1901] that no conclusive proof has yet been offered of a specific action of phosphorus in rachitis. On the other hand he says, cases have been published showing an actually deleterious influence. The Journal of the American Medical Association has mentioned Nebelthau's experience, the death of a well-developed child of two years after taking only 3 mg. of phosphorus in the course of sixty hours. Leo relies principally on dietetic and hygienic measures, especially the systematic administration of olive oil. If no improvement follows this treatment, he gives phosphorus in small doses, not over one teaspoonful of a .001 per cent. solution or ten drops of a .01 per cent.—*Journal of the American Med. Association.*

Training Schools for Nurses in Cuba.

Schools for nurses are to be established in Cuba. These schools will be State institutions, and will be under the control of the Department of Charities. Diplomas will be issued to successful candidates attesting their fitness for their duties. It is hoped to establish and maintain a universal standard for instruction, and to provide hospitals and institutions in the island, with skilled nursing service and proper number of qualified assistants.

Etiology of Pneumothorax in Childhood.

Zuppinger (Wiener Klin. Woch,, January 2, 1902,) reports the case of a female child, two and a half years old, previously healthy, who awoke suddenly in the night with a cry, complained of severe abdominal pains, moaned piteously, breathed with difficulty and was not to be calmed. The lips were blue, cheeks pale, and cold sweat came out upon the forehead. It was ot once brought to the hospital, where total right-sided pneumothorax was diagnosed.

Death in thirty-six hours. About half a liter of a turbid, semipurulent fluid was found in the right pleura, the right lung was collapsed and its base covered with a purulent pseudomembrane, and the sharp point of a foreign body was felt protuding therefrom, which was found to be an awn from an ear of wheat, of about 4 cm. in length. Further investigation showed that this had probably been aspirated during the night, as the child slept on a worn-out straw sack. Foreign bodies, as a piece of bone, have also been known to pass from the esophagus into the pleura. Likewise have intestinal worms bored their way through walls weakened by disease and penetrated into the pleura. The most frequent causes, however, are tuberculosis, measles, diphtheria, gangrene of the lung and emphysema, following whooping-cough.—*American Medicine.*

Acute Intestinal Obstruction.

McArdle (Dublin Journal of Medical Science) makes the following suggestions, in concluding his paper, in cases of difficulty in finding the site of the obstruction:

1. Follow the engorged coil of intestines upward and downward until the point of obstruction is reached, or turn out all the intestines.

2. Remove all fluid from Douglas' pouch and the loins by irrigation with sterile water.

3. Restore the color of the bowel, and establish peristalsis by heating with neutral saline solution. The removal of the primary cause of intestinal obstruction is not always followed by relief of the symptoms.

4. Should there be difficulty in returning the intestines, elevate the pelvis in the Trendelenberg position, or, if necessary, open and wash out.

5. Before all, and above all these conclusions, the following rule should be observed: "When a surgeon is called to a case of complete obstruction of the bowel, with evidence of peritoneal effusion, he should operate at once.

Inoculation Against Malaria.

Philalethes Kuhn, medical officer to the German colonial troops in South West Africa [Archiv fur Schiffs und Tropen Hygiene, November, 1901] narrates how he was led to employ a method of inoculation against malaria. Since the year 1899 he has held the opinion that malaria and horse sickness are but very narrowly separated from one another; and finally, for the purposes of his experiments, he held them as one and the same disease. He has employed the curative serum for horse sickness in the treatment of malaria, and claims that it has an influence on the latter and can cure it. With regard to the intimate relation of the two diseases, he points out that neither is immediately infectious, that both appear with the rains and cease with the cold season, that mosquitoes probably play a similar part in both, and that in certain of their clinical symptoms the two diseases resemble each other. To the objection that there are countries severely malarious without any horse sickness being present, he replies by suggesting that minute investigation would perhaps elicit the fact that horse sickness either prevails everywhere in tropical malarial countries, or has yielded to the gradual "salting process." He began his inoculations with this serum in January 1899. Between that date and April 20th white men suffering from unmistakable malaria were inoculated. During the inoculation they took no quinine. The inoculation was made in the forearm with a Pravaz syringe of 1 or more c. cm. of the serum. Following it appeared a slight swelling, somewhat painful, but disappearing entirely after a few days. Shortly after in many cases urticaria appeared for a short time. All forms of malarial fever were found to be influenced by it; thus in all cases the cold sensations of the first stage are diminished in intensity, a strong rigor being represented by a mere feeling of cold. The effects differed in accordance with the fact as to whether the patient had had previously much malarial fever or not.

With the natives and old residents the inoculations in many cases stopped the attack at once; with newly-arrived immigrants who had never had malaria and with children, after the inoculation there were on an average four or five attacks, the last always being the weakest. Between these two classes remained those white settlers who had already had malaria; here usually one to three attacks followed the inoculation. Again it was found that relapses occurred more seldom if the fever treated were quotidian or tropical malarial fever than if it were tertian or quartan; and, finally, the time of inoculation was important, as quicker results obtained if it were done during the attack than during the intermission.

Kuhn claims that his method of inoculation acts as a substitute for quinine, and that thus the avoidance of exciting "blackwater fever" will be caused, for the writer agrees with Koch as to the part played by quinine in the latter disease; that it obviates the occurrence of relapses; and, finally, that it prevents therefore any fresh infections.—*London Lancet.*

A Suggestion in the Treatment of "Bad Arm."

The present epidemic of smallpox has made itself most evident in the large number of vaccinations which have been done —the percentage of "takes" is one of the remarkable things. Giving due credit to more reliable virus than has been generally in use previously, it still seems that general conditions must be as favorable to vaccination as to smallpox. That more "bad arms" were not seen is largely due to the fact that better methods of treatment are now in vogue than were, even a year ago. The various shields, all somewhat valuable, but some remarkably so, have been a protection. Then the profession has found that the antiphlogistic method of treating the more aggravated of these arms is a success. The use of strong antiseptics has been objected to, as they undoubtedly interfere with the working of the virus, but the application of a generous layer of antiphlogistine completely covering the inflamed area will speedily allay the inflammation without in any way interfering with the success of the vaccination. The dressing should be changed only when it has become dry—usually two or three applications will be sufficient. After the subsidence of all inflammation the scab, which has assumed a greyish white while kept softened by the antiphlogistine,may be allowed to take care of itself; it will follow the usual course of the normal of its kind. In the presence of antidhlogistine, inflammation and suppuration will not thrive—its many uses will be indicated by the statement. It is a success not only in minor surgery,but in some more serious conditions as well. It is also useful in epididymitis and inguinal adenitis speedily aborting a considerable proportion of the cases where it is employed.—*Medical Fortnightly, March 25, 1902.*

Perineal Prostatectomy.

Albarran (Bull. et Mem. de la Soc. de Chir. de Paris, No. 33, 1901) holds that suprapubic prostatectomy in cases of hypertrophy of the prostate is a grave and often an unsuccessful operation. The mortality is from 10 to 15 per cent., and it is very frequently followed, after a short interval of relief, by a return of the troublesome symptoms. This surgeon is a strong advocate of the perineal operation, which, he holds, may be performed in a large proportion of cases of enlarged prostate, the only contra-indications being very advanced age, freedom from difficulty in catheterism, the existence of extensive periprostatic or perivesical abscesses, serious lesions involving both kidneys, and advanced urinary cachexia. This operation, it is asserted, is not a dangerous one, and is followed by brilliant therapeutical results. A full description is given of the author's method, which consists in breaking down and removing bit by bit the enlarged prostate, the capsule being left, and by leaving for a time an open perineal wound. The author has performed this operation on 18 patients without a single fatal result. Of these 18 patients 8, he states, have been completely cured, and are now able to micturate freely, the urine being clear and limpid, and the general condition quite sound. Of the other patients, 1 has been lost sight of, 3 still retain an open sinus in the perineum, and 4 have not been long under observation since the date of the operation. In the successful cases it may be noted the longest interval since the date of operation does not exceed six months.—*Edinburg Medical Journal.*

Multiple Myeloma.

E. Wieland of Basel (Virchow's Archiv. October 11, 1901) describes at great length 5 cases of this condition, chiefly from the histological standpoint. Three of them he published in 1893. The fourth case was in a woman of 61, who had stabbing pains in the back, but no obvious symptoms of bone disease. No albumen was found in the urine, and the author believes there was no albumose. Small tumor masses were found in the bones of the skull, the ribs, and the sternum, and in the upper part of one humerus and one femur. They partly involved the duramater, but in all other parts did not transgress the limits of the bones. No local primary growth was found. Histologically, the masses were of the connective tissue type, highly cellular, consisting of numerous small round cells and a smaller number of large, mostly mononuclear, giant cells, and a delicate intercellular substance, forming a fine network in which the cells lay singly. In spite of the obvious structural differences between these masses and normal marrow, the author is of opinion that there are closer relations between them and considers that the presence of mononuclear giant cells in the tumors is strongly in favor of this view. In the other new cases (a woman aged 54) no clinical history was obtainable. The post-mortem examination showed that the osseous system was beset with circumscribed tumors, which, unlike those in the preceding case, had in many places broken through the compact bone and were proliferating in the surrounding tissues. Wielaud's 5 cases all showed slight histological differences, but agreed in the main. The structure of the tumors was fundamentally the same, namely, round cells surrounded by a connective tissue reti-

culum and resembled most closely the normal reticulated tissue found in lymphatic glands, as well as in the spleen, the bone marrow, and other adenoid tissues. The author is inclined to designate them as lymphosarcomata.

This condition has no specially characteristic symptomatology. Albumosuria is not a constant accompaniment of multiple bone tumors, and there is nothing characteristic in the bone pains. They are always marked by profound anæmia, which is probably connected with interference with the blood-forming functions of the murrow, and there is generally fever towards the close.

The author points out that under the term multiple myeloma three distinct affections of the bones are included, and he proposes that it should be used in future in its strict anatomical sense, to designate circumscribed lymphatic deposits in the marrow, their structure being strictly homologous to that of the tissues among which they lie. They may, however, break through the bone into the neighbouring tissues, but they never produce metastases. The term lymphosarcoma he would apply to sharply circumscribed new formations, consisting mostly of round cells, and differing as regards the cell form and the intercellular substance from the normal marrow. These tumours may remain within the normal limits of the bones or may proliferate into adjacent parts, but metastases in distinct organs are exceptional. A third class comprises cases of alveolar sarcoma, endothelioma described by Kahler, Marchwald, and others.—*British Medical Journal.*

Suicide in the United States.

There were 7,245 cases of suicide in the United States during the past year, and it is probable that a great many suicides are concealed. The published statistics show that the number of people who take their own lives is increasing much more rapidly proportionately than the population. As usual poison heads the list of agencies, and as usual medical practitioners are at the top of the list of victims in professional life.

Conservative Agency of Shock.

Dr. H. G. Wetherhill (Journal American Medical Association) in an article on this subject, deduces the following conclusions: 1. Surgical shock, entirely unassociated with hemorrhage, is a condition rarely seen, and one which may usually be successfully treated in persons who are otherwise in good health. 2. Hemorrhage, though small in amount is a far more important factor in the production of surgical shock [as it is seen clinically] than we have been accustomed to think of. 3. This mixed shock [traumatic asthenia] should be designated by some distinctive title, or the term shock be construed to comprehend all the factors in its genesis, 4. While not proven, it seems probable that the effects of even a small continuous arterial hemorrhage is to produce through its reflex action lower blood pressure, and in general a condition so like true shock as to be very difficult of differentiation, particularly if the hemorrhage is concealed, as in ruptured ectopic pregnancy. 5. Surgical shock, with or without hemorrhage, must be construed as primarily conservative in its tendencies. The incident prevention of rapid exhaustion, of acute suffering, or great blood loss when the blood-vessels are opened, all tend to the ultimate saving of life. 6. Premature stimulation in the treatment of traumatic asthenia may defeat this conservative effort of nature. Bleeding should be stopped, and proper provision made for the comfort and welfare of the patient before strong stimulation is resorted to, unless there is imminent danger of death. 7. Anæsthetics must be sparingly and carefully given to patients suffering from surgical shock [traumatic asthenia] chiefly because they completely obliterate the reflexes. The saturation of the patient with an anesthetic may turn the scale against him, even though the direct effect of the anesthetic be stimulant. The same rule holds good in regard to the employment of alcoholic stimulants if too freely used. 8. We should co-operate with and supplement nature's conservative efforts. They are always exercised in behalf of the patient, never against him.

ADVERTISEMENTS.

In the British Medical Journal, No. 1997, p. 880, Thomas W. M. Blake, M.D., St. Andrews M. R. C. S., England, says: "Many patients with consumption or other wasting diseases appear to tolerate its (Angier's Petroleum Emulsion) use when cod liver oil cannot be tolerated. Instead of setting the stomach in revolt, as the latter will often do, it appears to soothe the mucous membrane and produce a more natural tone and power of assimilation. Petroleum does not irritate the nerves supplying the mucous membrane of the stomach but doubtless cleanses away the foul mucous and leaves the digestive organs in a more healthy condition to perform their functions naturally. Nutrition is improved, therefore the condition of the weakened and diseased lungs improves."

Creosotal in the Treatment of Acute Non-Tubercular Diseases of the Respiratory Organs of Nurslings and Children.

Dr. Wilhelm Meitner, [Allgemeine Medicinische Central-Zeitung, Berlin, January 22d and 25th, 1902]. The Creosotal treatment has given the author most excellent results during the past two years, more especially in children, and even in infants. This is shown by the special records that he has kept in over seventy-five cases.

The simplicity and agreeable nature of the treament makes it especially suitable for the poor in large cities. Nothing more is required than occasional cardiac stimulation by means of small doses of wine.

The Creosotal was noticeably effective both upon the etiological factor and the local disease focus; and the secondary affections that so frequently occur in these patients were either entirely absent, or showed a really diminished severity.

By means of the large doses of the non-poisonous remedy that could be administered, the tissue fluids of the organism were saturated with creosote; this was evident from the odor of the sweat that accompanied the fall of temperature, which remained in the clothes for days. Kidneys, skin, and lungs excreted the drug; the urine became dark and of the characteristic odor; but any excess was excreted by the bowels without any irritative symptoms, as the author saw occasionally in infants taking large amounts of it.

Dr. Meitner lays especial stress upon the fact that the earliest Creosotal excretion occurs in the expired air, making its use very advantageous in respiratory affections. There is thus a constant creosote diffusion through the bronchial mucosa, which is in many cases the seat of the disease; and the air spaces are filled with a creosoted and disinfected air.

Antipyretics were needless, since the Creosotal controlled the fever by acting upon its cause more quickly and promptly than the drugs usually employed for their purpose. In acute laryngites, bronchites, and bronchopneumonias the fall of temperature accompanied the dosage step by step; so that in twelve to thirty-six hours the fever had disappeared, exactly as occurs in a fresh lobar pneumoina. Even in longer standing cases the temperature became normal or nearly so in seventy-two hours at the most; slight remains of it persisting for two or three days in cases that were already debilitated by chronic affections when attacked by the disease.

Dr. Meitner warns against the employment of too small doses, which do not give the desired effect. Infants seriously ill should get 1 gram (15 grains) daily if under six months of age; and up to one year of age 1.5 grams (22½ grains). From one to two years the daily amount should be 2 to 2.5 grams (30 to 37½ grains), from two to five years 2.5 to 4 grams (37½ to 60 grains), and from five to ten years 4 to 6 grams (1 to 1½ drams). The number of doses into which these amounts are divided is not of much importance; but the drug should be administered every five to eight hours. Care should be taken not to let too great an interval elapse without medication during the long winter nights.

As the temperature falls the dryness of the tongue, the audible, labored breathing, the frequent pulse, and the restlessness or depression also disappear. Thirst, headache, dyspnœa, and exhaustion becomes less; the children get brighter; and the appetite often returns suddenly, as it does after typhoid fever, so that it is difficult to keep the patients to a suitable diet for the first twenty-four hours thereafter. Nursing infants can be permitted to satisfy their hunger freely. The general symptoms disappear even before the Creosotal has had time to exercise its full effct upon the local focus of disease.

The more recent the disease changes, the quicker do they give way. Simple acute laryngites and anginas disappear in one day; they seldom persist for two; and in the latter period even subchronic forms lose much of their intensity, to disappear by the fourth. In acute bronchites in their earlier stages we can be sure of a rapid result; they often disappear entirely in twenty-four hours. The same is true when it has entered into the dry stage; a single prescription is often sufficient to cure the case. Bronchitis cases that are several days old, and in which the mucosæ are greatly irritated and dry, are rapidly moistened by the Creosotal and cured in a few days. The solvent action of the drug is well seen in the older, dry bronchitis, with but little tough secretion; it quickly renders the expectoration more fluid and ends the process. The same thing occurs in the capillary bronchitis of infants; the tough mucoid masses become fluidified, and the cough becomes ceaseless, thus avoiding the dangers of atalectasis of the lungs and suffocation. Since Meitner has employed Creosotal he has had three cases of pronounced capillary bronchitis, and has lost none of them.

In bronchopneumonic processes the areas of consolidation rapidly disappear under the solvent action of the drug; and in lobar pneumonas the infiltrations melt away soon after defervescence of the fever. This lat-

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upon the respiratory tract is indisputable. It allays the cough and respiratory distress of bronchitis, winter cough, pneumonia and influenza. It invigorates the whole system too.

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ter usually occurs at a time that there is still pure bronchial breathing without any rales at the site of the local lesion. But they appear abundantly during the next twenty-four hours, and the children improve so rapidly that they can hardly be kept in bed; and during the next two or three days the lungs clear up entirely, for the expectoration is abundant and easy in consequence of the solution of the mucoid masses.

There is hardly any period of exhaustion or convalescence after these severe bronchites, bronchopneumonias, and pneumonias; it is almost completely absent under the Creosotal treatment; and therefore the gastro-intestinal complications that are generally so common are but rarely seen.

Infants and small children, as is well known, swallow their expectoration; and here the Creosotal, a most excellent intestinal antiseptic, prevents that tract from being damaged thereby.

The treatment must not be stopped with the cessation of the fever; to prevent relapse and complications it must be continued as long as mucus is audible in the lungs. If the Creosotal is stopped before the local lesions have entirely disappeared, reinfection, renewed fever and extension of the local trouble may occur. The dosage may be diminished as soon as there is a decided local improvement; and it should be continued for one day after the lung symptoms have entirely disappeared.

Dr. Meitner here appends a tabular list of twenty-one cases of bronchitis in nurslings, thirty cases of bronchitis in children aged one to ten, three cases of bronchitis

suffocative, ten bronchopneumonias, and eleven pneumonias treated with Creosotal. In some of them there is really no history at all, since the disease was absolutely aborted. Cassoute has called attention to this class of cases, in which the sudden high fever and marked symptoms disappear after a few teaspoonfuls of Creosotal mixture, and the child is absolutely well in twenty-four hours. Many of them were cases of measles; but the author states that he gives no treatment at all for the exanthematic disease, and all the cases included were such as had marked complications that gave special indications for treatment. Complicated cases of measles got well almost as fast under the Creosotal treatment as uncomplicated ones under no treatment at all. There were no sequellæ of any seriousness. Even a severe case of pneumonia and enteritis, which had at first been treated by some one else, and not with Creosotal, and which was in a very serious condition when Meitner took hold of it, soon recovered completely under Creosotal.

In concluding Dr. Meitner inquires what Creosotal Von Heyden can be expected to effect in the complications of measles. Where there are anginas and laryngites the troublesome cough ceases after two or three large doses in two to six hours, and sometimes permanently. Where moist rales in addition to the rough breathing and localized sibilant and sonorous rales show the presence of a general bronchial catarrh, the phenomena disappear in one, two, or at the most three days, even in individuals of such constitution that we would not expect such a favorable course to the disease. When the very first examination shows areas of consolidation in the catarrhal lung, these signs become plainer during the first day in consequence of the immediate retrogression of the general catarrhal symptoms; and in forty-eight hours these have usually entirely disappeared. The serious symptoms, the rapid, superficial breathing, the audible rales, the prostration, soon become less marked; and all the symptoms disappear during the next few days under the Creosotal. In half-grown children, who cannot be kept long in bed, measles is often followed by a subacute bronchitis, a cough with expectoration, lasting a week or more. These conditions also are relieved by Creosotal in two to three days.

The gastro-enteric sequellæ that occasionally set in later after an attack of measles, and that are caused by swallowing the expectoration, are mitigated by the administration of Creosotal; and are rapidly cured.

Anyone who has once treated the complications of a measles epidemic with Creosotal will not be willing to do without it in the next series of cases that he meets.

A Systemic Alterative Effect.

The following from Gaillard's Medical Journal, by Dr. A. H. Ashley, of Boston, Mass., will interest our readers because of the original way in which he expresses his pronounced admiration for something tried, trusted and not found wanting. The letter was written to our old friends, The Antikamnia Chemical Company, and reads as follows:

Gentlemen—Your various combination tablets, as well as antikamnia tablets have been used by me for a number of years, and I can only say that they have uniformly given me the best results. But, my dear sir, why have you waited so long to give us the very best combination of them all? I, of course, allude to your "laxative antikamnia & quinine tablets.

If there is anything known to the medical profession which will take their place in that class of diseases, where one wishes to relieve pain, control the temperature and at the same time produce, by laxation, a systematic alterative effect, it has not been my good fortune to find it. In those cases of severe neuralgia, and particularly in ovarian and menstrual pain, where morphine was our only hope [and where, after its administration, we had indigestion, bowels bound up, nausea, habit, etc.] you have in Laxative Antikamnia & Quinine Tablets a remedy which will, my experience has taught me, replace morphine and meet all requirements.

I am slow to be carried away by enthusiasm for any drug or combination of drugs, but I freely and voluntarily confess that in these tablets you have given to the profession a remedy so effective and reliable in its action that it offers good excuse [or a mitigating circumstance anyhow] for a little effusion from one who, as a general thing, is not given to gushing.

With my best wishes for your future and many thanks for your elegant preparations, I am sincerely yours,

A. H. Ashley, M. D.

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sands of gallons are bottled and shipped annually. The medical virtues of the waters are recognized by the highest authorities, who have given them unqualified endorsement in stomach, liver, kidney and skin diseases. Buffale Lithia Water is very much superior to other waters, lithia salts or tablets, and more easily borne by the stomach. Its highest merits are as a solvent of Calculi, and it is the only mineral water which efflciently disintegrates and removes kidney and bladder calculi, gravel, etc.

It has been time and again shown that artificial preparations of lithia salts do not produce the wonderful results obtained from the combinations made in the secret laboratories of nature. In no class of diseases is the value of Buffalo Lithia Water so marked as in dissolving or disintegrating these calculous formations. It not only acts as a solvent of stone after it enters the bladder, but it relieves the existing trouble and prevents a return of the condition.

Prof. Jno. V. Shoemaker, of Philadelphia, affirms that Buffalo Lithia Water exerts a solvent action upon renal, hepatic, and vesical calculi. It has been instrumental in disintegrating large calculi of varying composition. In a number of cases of gravel, both of the phosphatic and uratic variety, the systematic use of the water has rendered the gritty and irritating particles soft and finally dissolved them.

Dr. Wm. H. Drummond says that in several cases of urinary calculi, visical irritation, etc., recently under his care, he administered Buffalo Lithia Water with wonderful success. In one particular case, where the patient was suffering most acute pain and distress with forked urinary stream and all the symptoms of a large calculus, entire relief was experienced in eight days, the disintegrated portion of stone passing away without difficulty.

In Lithaemia, or uric acid diathesis, the use of Buffalo Lithia Water is highly recommended, and it is considered a prophylactic against kidney colic, etc. In gout and rheumatism Buffalo Lithia Water is invaluable. It is not only anti-rheumatic but curative as well of attacks of chronic gout.

Dr. J. Montfort Schley, says: "I have prescribed Buffalo Lithia Water in my private practice for several years with the greatest satisfaction in gouty and rheumatic affections and in catarrh of the bladder. I know of no water of equal value in gouty affections."

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Dr. I. N. Love, says: "In infectious diseases, such as Scarlet Fever, Pneumonia, Typhoid Fever, Malaria, La Grippe, etc., the normal secretions are frequently—indeed usually—checked or perverted, As a result we often have gouty or so-called rheumatic complications really dependent on the interrupted elimination; and the essential necessity as a preventive and cure is free flushing of all the eliminating organs. For this reason the Buffalo Lithia Water is most excellent and should be administered as a beverage liberally, several times a day, in all such cases, until complete cure is established."

Dropsies of Kidney and Liver origin, Bright's Disease, Albuminuria, etc., yield readily to the free use of Buffalo Lithia Water.

Dr. Wm. A. Hammond, says: "I have had considerable experience with Buffalo Lithia water in the treatment of Bright's Disease. I have witnessed the albuminuria of this affection and also casts of the renal vessels disappear on the use of the water, and this not only in a single case but in several of which I have full notes. It must in these cases be taken in larger quantities and its use continued for a considerable time."

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Clinical Reports

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Newark, N. J., Feb. 1, 1902.

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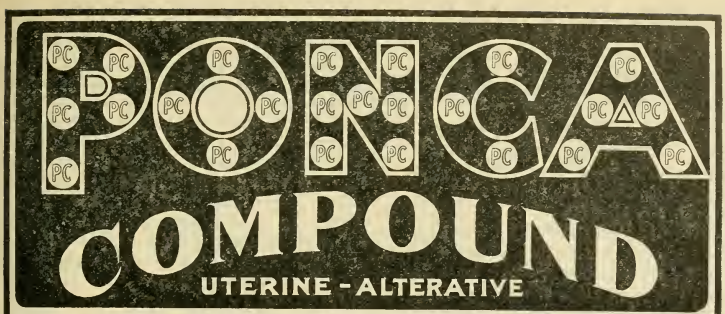

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By Dr. E. G. Corbett, Hampton, Fla.

[Published by the Medical World of Philadelphia, Pa., Feb., 1902.]

On Christmas day a boy of twelve filled a vaselin bottle with powder and exploded the same. I arrived on the scene about three hours after the accident and found the cornea and sclerotic of both eyes and the face literally blown full of powder. I removed a dozen or more flakes of powder from each cornea with a foreign spud; also removed the powder from the sclerotic. Did the operation under a four per cent. solution of cocain. After the operation I used a fifteen per cent. solution of Hydrozone in the eyes. After removing the particles of glass from the face, I kept a cloth over it saturated with a fifty per cent. solution of hydrozone. At the end of two weeks I used a saturated solution of boric acid in the eyes and painted the face twice daily with equal parts of hydrozone and glycerin. The eyes are well and powder stains have disappeared from the face.

The Biological Laboratories of the H. K. Mulford Company, at Glenolden, Pa., make another step forward in the progress of work in serum organotherapy and in the investigation of infectious and contagious diseases, by securing the services of Joseph J. Kinyoun, M.D., Ph. D., late surgeon of the Marine Hospital Service, at Washington.

Dr. Kinyoun is widely and favorably known at home and abroad as a sanitarian and scientific investigator and has served the government on numerous occasions as special delegate to International Medical Congresses. He is devoted to original research in bacteriology and in the interests of the government he has visited the various bacteriological laboratories in this country and in all Europe and Japan. Dr. Kinyoun received special instructions from Professors Koch, Roux, Behring and Pasteur of Berlin and Paris, as representative of the government, thus acquainting himself with the progress made in serum organotherapy, and in the investigation of infectious diseases. He is peculiarly fitted for the directorship he now assumes and under his administration there will be still further advance made in the field of biology as applied to medicine.

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Seven years ago I became afflicted with Diabetes Mellitus. I tried about everything that I read of, in the highest medical literature, or that any physician had ever tried, with even a hope that it was helping his patient; I gradually grew worse, until I excreted more than 4,000 grains of sugar daily. In November, 1896 a paralytic condition set in, beginning at the ends of the fingers and toes and extending toward the trunk, one joint at a time, until in about two months, I could just stand, and had but slight sensation in my fingers, when I read one of your booklets. Had no faith in its claims, but that was the straw, and so I, the drowning man, caught at it. In less than three months,after beginning the use of Allouez the amount of sugar decreased to 200 grains per day, and occasionally a specimen would show no trace of sugar. There can be no doubt that in three or four month more, without the water, this condition would have reached the vital organs, when death must have ensued; I can truly say that Allouez Magnesia Water has rescued me from certain death.—W. C. GLIDDEN, M. D., DeKalb, Ill.

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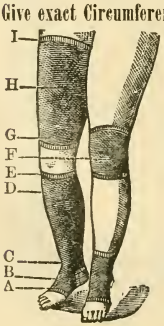

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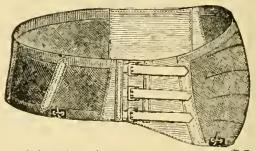

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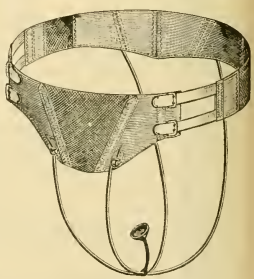

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The Charlotte Medical Journal.

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Why not Forestall Tuberculosis and Blot it from the Face of the Earth.

By James A. Burroughs, M.D., Asheville, N. C.

Modern sanitary laws enforced by municipalities and nationalities have partly throttled certain contagious and infectious diseases and increased longevity 16% within the last generation.

Vaccination was practiced more than one hundred years ago but smallpox was not rigidly quarantined until later and now, it is to be observed that through vaccination and intelligent quarantine the disease is so robbed of its horrors, that it no longer strikes terror to a community.

By rigid quarantine of diphtheria and the prompt administration of diphtheritic antitoxin this once dreaded disease has become a subject of vigilance and not of fear.

The investigations of the cause of yellow fever by Walter Reed of the United States Army at Havana during the past two years have been so thorough and convincing of the real source of infection that never again will the United States, or any other progressive country with a well organised Board of Health, experience an epidemic.

Scientific investigation has set a trap and scattered the poison for the rat with a strict quarantine of every suspected case of the plague and has forever prohibited the disease again establishing a hold in any quarter.

By intelligent quarantine of scarlet fever, whooping cough and measles followed by thorough formalin fumigation these diseases are limited to circumscribed localities, yes limited to a single person in a room in a building with many rooms, or dormitories, with many persons of a susceptible age.

In the year 1899 approximate mortuary statistics of the United States of America was 1,900,000. Pulmonary tuberculosis was responsible for 246,000 deaths or approximately 13% of all deaths were due to pulmonary tuberculosis. The mortuary statistics of the United States possibly strikes a fair average with other countries, except that of Germany, where in the same year 25% of all deaths in that country were attributed to tuberculosis. Insurance statistics of companies issuing policies against sickness in Germany for the year 1899 shows 42% of the laboring class tubercular. These facts or statistics are so stupendous and startling that the average mind fails to grasp the cold, thin, clammy situation of this unfortunate multitude.

We should pause and think; practically no man is born tubercular, every one who has tuberculosis has contracted the disease and, in every instance, it could have been forestalled and prevented. For just twenty years we have known the tubercle bacillus, and year by year we have learned its habits and various modes of entering the human system, consuming and extinguishing the life of that which is made in God's own image.

No problem before us at present compares in gravity and magnitude, not only to this generation, but to those who come after us, as to the wisest disposal of the consumptive. The great question is of two-fold significance—First. How can we best care for the patient? Second. How can we prevent the spread of the disease.

How can we best care for a consumptive. To place him in the most favorable condition for an arrest or cure and, at the same time, prevent a spread of infection, allows of much latitude for debate but at the best, narrows down to a few cold facts. Education of the laity, suitable legislation and a hearty co-operation of each medical man in the land.

Tuberculosis annually causes more deaths than any other two diseases combined. It is an insiduous disease, unlike acute infectious troubles, and the public has learned to look upon consumption as something that has always been with us and accepts the situation as a matter that cannot be prevented.

How to educate the masses out of this state of lethargy is a question that should be begun under the head of hygiene in our Public Schools. Small children should be taught that tuberculosis is contagious so as to avoid infection from an afflicted parent, teacher or schoolmate. These children should be taught that in the sputum lies millions of germs ready to infect any subject with a poor resisting power caused by heredity, mal-nutrition or any other cause.

Public Schools everywhere should have a course of public hygiene with special re-

ference to obliterating tuberculosis. This course should include the poor resisting power of children born of tubercular parents, or born of healthy parents, with systems that have deteriorated, because of environments, lack of proper food, clothing or habits.

Too much attention cannot be given to modern sanitary living quarters with adequate room for an abundance of pure fresh air and sunshine; at the same time devitalized air should be taught as one of the potent causes of tuberculosis. There are many things to be included in this little course of hygiene or young war against tuberculosis which has received no attention here but may be brought out in the discussion.

I know of no other way to reach the masses, on this or any other subject of such vital importance, as starting at the fountain head with the little ones who in half a generation will have the custodianship of all nations.

We must all acknowledge that the contagion or infection of any disease must be implanted in the minds of a community before a moral support is given a Health Board to stamp out a disease. It is when Boards of Health are "scotched" by the medical profession, upheld by a people who have been taught the nature of tuberculosis with its various modes of infection, etc., and the means by which it can be controlled, that we expect to see the disease practically abolished from mortuary certificates.

The public mind of America, as well as that of Europe is becoming aroused as to the ravages of tuberculosis and, at the same time, as to its prevention and curability. Much unwise legislation has been proposed from erratic, impulsive sources, for instance the "Immigrant Exclusion Act of the Tubercular." Some states have introduced bills to prevent the introduction of the tubercular; even a few villages have passed ordinances prohibiting the tubercular from entering their gates. Such legislation is worthless because it is impracticable and will ever remain dead upon the Statutes. Notwithstanding some mistakes have been made along this line, much good has already been accomplished. The civilized world is enlightened as to the great danger that lurks in the consumptives sputum. (Various pocket flasks and hand cuspidors have been devised for receptacles of sputum; minute details are given each individual as to collecting and destroying same by all intelligent physicians).

Four fifths of the cities of the United States have passed ordinances prohibiting spitting on the sidewalks, floors of street cars and public buildings, Asheville N. C. in 1894 was the first town in the United States to pass such an ordinance. Dr. Trudeau at Saranac Lake very shortly followed suit and it soon became contagious. Many hundred copies of our Ordinance have been sent to city attorneys throughout the country, by request: The Ordinance has been well observed here. No man can visit our principal cities today and compare hotel lobbies, street car floors and sidewalks with six or eight years ago without being impressed with a change for the better.

Municipalities are discussing, on every hand, the disposition of their consumptive poor; in many instances homes have been established exclusively for the tubercular. Massachusetts and New York have already made contributions and established State Institutions for consumptives; other states are formulating plans along the same line; it is entirely logical and but reasonable to expect every city and state in the Union to adopt some practical means for the care of the consumptive pauper and to prevent him from infecting others.

The Sanatoria idea has taken possession of Italy, Germany and, I may say, all of Europe. As yet the Sanatoria capacity is so out of proportion to the number of consumptives in those countries that it offers but slight protection; besides it has yet to be proven by any kind of statistics that this is best for the inmates. At best this plan can only offer protection in ratio to the Sanatoria capacity.

The Tenement House question has been well discussed by Knopf and others and, in a few instances, has brought about some legislation as to capacity and ventilation of apartments. Many cities have taken up the milk and meat supply with a view to eliminating tubercular food products. Many states and nationalities have laws providing for disposal of tubercular stock. Many other legislative steps have already been taken against this, the great foe of the human race.

An International Congress of Tuberculosis has been formed and it is from this International body that the world may expect, in a reasonable time, some formulated plans whereby this disease may be controlled.

An international prophylaxis of tuberculosis is eminently necessary and suitable international regulations or laws must and will be enacted to combat this disease, as has been with cholera, the plague and yellow fever.

In the meantime while we are waiting for action of our International Congress to formulate laws, let each nationality, state,

city and parish meet the question squarely with suitable care for this class.

In this country it is a debatable question as to national, state, municipal or county supervision. Very few states possess suitable climatic points for this class. National Consumptive Parks-consisting of small farms and truck gardens with many tents and inexpensive cottages, located in a dry climate at a suitable altitude, seem to be the reasonable solution. In this way the chief focuses of infection will be removed from the country and placed in a most advantageous position for a recovery. At the same time it is to be noted that sputum, in a high, dry, sunny climate is practically sterile as soon as dry, so these parks would not become infectious or pestiferous localities from long habitation.

In this connection cannot refrain from suggesting something along the same line for the prospective consumptives; poor children born of tubercular parents with bad lymphatic systems and reared in an atmosphere loaded with moisture and superabundance of bacteria and who have improper scant food are as certain to become tubercular as time rolls on unless environments are altered. It is for this class, who are very numerous, that so much good may be accomplished by a change of environments and by giving them good food and plenty of fresh air.

A national supervision would be most admirable but is probably impracticable; a county supervision is entirely feasible. It is the poor that needs government protection; the well-to-do and rich have largely ceased to raise tubercular offspring. The trouble is forestalled by the child being placed in the best climate with good food, etc., to grow up into a healthy citizen.

The medical world is aroused upon the subject as is evideneed by a continuous stream of literature from all quarters of the globe.

Something has already been accomplished in lessening the number of deaths in the country. The mortuary certificates of thirteen of our largest cities for 1900 show a decrease of 26% from tuberculosis over 1890: this intimates that the trouble is not only being prevented to a degree, but is being handled in a more intelligent manner than ever.

With a course in Public Schools on hygiene, with special reference to tuberculosis, in fifteen years we will have a voting population who will indorse any suggestion from the International Congress of tuberculosis. This is a young subject yet vigorous; some of the best brains of the world are devoting their energies to the prevention of the trouble.

While waiting for the educated hoard, international, national and state laws, let each physician be true to his clinician by keeping the young from becoming tubercular by knowledge which is in the possession of all; at the same time placing those who are already tubercular in a suitable climate in competent hands and fumigating behind them.

If we can and do but utilize the knowledge that is in our possession, we will be able to largely forestall tuberculosis and so reduce the death rate from this cause that longevity may be increased several per cent.

Pernicious Aneamia.

By H. M. Fletcher, M.D., Asheville, N. C.

My excuse for writing on this subject is not to advance any new discovery or new theory in regard to the causation of the disease, or to offer suggestions as to its better management: but to urge upon the average practitioner the importance of making a better diagnosis. It will do no harm to repeat the threadbare phrase. "He who diagnosis diseases best treats them best."

We mean by Pernicious Anaemia, a grave form of disease, occurring independently of any causal organic lesion, in which there are grave changes in the blood; a disease of the blood and blood forming organs, with either excessive destruction (Hæmatolycis) or defective production (Hæmatogenesis) of red cells.

We were indebted to Addison in the year 1855 for the first authentic description of this disease. He used the term Idiopathic, which has of later years fallen somewhat into disuse. We are learning to find causes outside of the blood for a number of these profound Anaemias, which were at one time classed as Idiopathic. For instance, there is a growing belief, which is not without foundation, that after we eliminate cases due to intestinal parasites, which up to a few years ago were charged to the Pernicious Anaemia class, there is not an inconsiderable number due to absorption of material which should be eliminated by the bowel.

Intoxication, resulting from some failure of the digestive or eliminative process, Toxaemia, if you choose. Hence, the importance of looking after the intestinal tract in all forms of Anaemias. Many cases of profound Anaemias, which have been diagnosed as pernicious by competent observers, have been cured by high colon

flushings, Beta Naphthol, Salol, mild mercurial dosing, etc

Notwithstanding our ability to classify anaemias better than in former years, there are still quite a number of cases which can only be classified as Idiopathic with typical symptoms as laid down by Addison, and elaborated upon by more recent writers. These cases are so uniformly progressive to a pernicious or fatal termination, we are led to believe that when we report a cure there was possibly an error in diagnosis.

Symptoms.

The patient has not his usual spirit and energy; he is languid and tired; the languor increases from day to day; his complexion grows pale and anaemic; the eyes are pearly white; the extremities are cold: he suffers from numbness and tingling in his feet, hands and extremities, which gradually increase from day to day, and extend toward the body. There is great muscular weakness with cardiac palpatation and haemic murmurs. Dyspnœa is marked, with œdema of feet and ankles often. We have petechial and ecchymotic spots frequently.

The skin becomes dusky pale, lemon colored, due to the destructive process which is going on in the red cells, the result of which is the elimination of iron, which is deposited in the pigment of the skin and in the liver cells. Increased deposit of iron in the liver cells causes derangement of the function of the liver and we have jaundice as a result. The lemon colored hue is regarded by many a pathognomonic of the disease, the color being in decided contrast with the green of chlorosis. Gastro intestinal disturbance, eructations, borborygmus, distended abdomen with pot belly are common; the waist band of trousers is often increased several inches; anorexia, nausea, occasional vomiting are constant symptoms. The patient is easily worried, has faintness and breathlessness.

While the symptoms enumerated are present in the majority of cases, some of the following symptoms are observed in others.

Persistent diarrhœa is classified amongst the constant symptoms, although there are undoubted cases occurring with obstinate constipation. Epistaxis is frequent. Profuse sweating, while not mentioned in most text books has been a very constant symptom in one of my cases. The sweating has been confined principally to the body or trunk, necessitating the change of clothing as many as four times in the night. It has failed to yeild to any treatment so far instituted. Sternal pains, epigastric pains pains in the long bones and joints occur Another symptom of importance, owing to the fact that it is so annoying and racking to the patient, is paroxysmal coughing, occurring at short intervals without any apparent reason. It is as severe as a whooping cough, and is obstinate to treatment. Osler, in his work on practice, fails to mention cough as a symptom, and in a recent communication from him, he says he has not observed the cough in these severe anaemias, nevertheless, it is referred to as a very annoying and destressing symptom by some authorities on this subject.

Varying temperature record has been observed. Often our patient will go for days without fever, then we will have a run of temperature from 101 to 102. In one of my cases, the heat controlling nerve centre, which is supposed to be located at the floor of the fourth ventricle, seemed to get entirely out of balance. I had heat production much beyond heat dissipation. Just how the condition of the blood or circulation affected the peripheral ending of the sensory nerves causing disturbance of the heat centre, I cannot say, but I do know that I had a continuous run of temperature raging from 104 to 106, lasting several weeks without any apparent cause, except the anaemia with its corresponding blood changes. I followed this case to a fatal termination, made a post mortem, found the usual horse flesh colored flabby muscles, and other post mortem appearances, which are laid down in our text books.

After enumerating the symptoms, all of which are not present in any given case, and if they were I submit that it is not possible with any degree of certainty to diagnose Pernicious Anaemia from the profound Anaemia of malaria, syphilis, cancer, etc., without the aid of the Ophthalmoscope, the Microscope and the Haemoglobinometer. The Ophthalmoscope usually shows one or more retinal hemorrhages. The Haemoglobin is relatively increased so that the index reads plus, exactly opposite from the reading in chlorosis.

We have a diminution in number with great varieties in size and form of red cells. The red corpuscles sink to one-third or less of their number, and are often diminished below two million per cubic millimeter. Of the remaining cells a considerable number are abnormally large (Megalocytes). Nuncleated red cells of normal size (Normoblasts) are of rather infrequent occurrence. Megaloblasts, which is synonomous with Gigantoblast, and means a sprout or germ in the blood, are supposed to be of characteristic diagnostic importance.

As I stated in the beginning, my object in writing this paper was to urge upon the general practitioner the importance of using these aids in every day practice. It is very important that we diagnose this disease in its incipient stage. We cannot with any degree of certainty make a diagnosis without these aids, and we may just as well begin to use them in this and many other diseases or be left far behind in the race for our goal in medicine. We all know how a positive diagnosis of the simpler forms of anaemias fills us with hope and they are amenable to treatment, while on the other hand a diagnosis of Pernicious Anaemia fills us with awe, and we have despondency as a result, and more than this, if we care for our reputation, we must not wait until our patient is well nigh into his grave before we make a diagnosis, because as grave as the prognosis is in this malady there is a rational treatment for it. We know, furthermore, that men who are painstaking and accurate, who use all the means at their command, do diagnose this disease with a degree of certainty and institute rational treatment early in its course. It is not a comforting thought to think that we sometimes treat patients for various obscure troubles, malaria, some of the various forms of nervous troubles or for the simpler forms of anaemia, without benefit, and send him to a consultant (and the last man in the premises always has the advantage), who goes deeper into the subject, makes a blood count, examines the retina, gives a positive diagnosis with probable correct prognosis, and institutes a line of scientific treatment. How much better would it be for our patients, how much would we save ourselves from chagrin and how much more comfort would we get out of the practice of medicine, if we would learn to use these helps in diagnosis. We have the time, we could easily quality ourselves, but we just do not take the trouble to do it.

It is all very well to say that it is bedside proof, and not laboratory proof we want in making a diagnosis, and that the microscope is a nice thing with which to amuse one's self, but often we need this corroborative proof which the microscope furnishes. We have not discharged our full duty towards our patient until we have exhausted all the means at our command for diagnosis, as well as treatment.

Dr. Proileau in a recent paper before our body gave a very interesting proof as to the value of the study of the urine in diagnosis, and gave practical and simple methods of conducting these examinations. The study and analysis of the blood is of equal importance. Some of you will say that the general practitioner has not the time to make these examinations. How much of time do we waste with matters of less importance and of less interest and benefit, besides one examination and experiment leads to another, and one thought begets another. All the advances of any consequence made in medicine and surgery in the last generation, and they have been numerous, have been made along these lines of study, and our future lies in this direction. We are creditably informed that Koch discovered the tubercle bacillus while he was a general practitioner.

This is a day of specialism in medicine and I yeild to no one in my admiration for the legitimate specialist. At the same time it behooves the general practitioner to wake up and go to work, and not let the other fellow handle all of these problems for him. We will wake up one of these fine mornings to the realization of the fact that our usefulness and knowledge in medicine have run to seed, and the man with modern methods and helps will be doing the business.

A family of four members, in which I have the honor to be called "Family Physician" has three members sick. One of them I sent to an oculist, the second I turned over to one of our number who has skill in the application of deformity apparatus, and the third went to a lung specialist. There isn't anything left for me except to wait for a midnight call to a case of croup or colic, and its "dollars to doughnuts" if I am not the last man on the list to be paid.

But to return to my subject. I will only add a few words on treatment.

Absolute quiet and rest in the outdoor air is essential in the treatment of this disease. A stuffing diet of nutritious food of meat, broths, eggs, milk, etc. Massage with inunctions, high colon flushings with normal salt solution, with Beta Naphthol, Salol and occasional small doses of calomel are beneficial, and above all, arsenic in large doses up to thirty drops of Fowler's Sol. if the patient can stand it, stopping at intervals every few weeks for four days rest from the arsenic.

Based upon the supposition that the red blood cells are formed or replenished from the red bone marrow cells, and because we do sometimes find post mortem evidences of disease in these cells, Red Bone Marrow has been much used lately in these troubles. I have had no experience with it, but in a grave disease like this we should use all remedies of repute, and this one is well worth a trial. It makes no difference whether the blood forming elements are interfered with, or there is excessive blood

destructions, a condition confronts us, and we should not give up till we exhaust our list of remedies.

DISCUSSION.

Dr. Reynolds.—I will state that about two years ago I was called to see this gentleman, this patient he has referred to as his second case. He had this lemon color that Dr. Fletcher spoke of and was very hard to control. He had an elevation of temperature anywhere from 100 to 102, he had no diarrhœa, in fact tendency to constipation. At that time I placed the gentleman under five drops of arsenic. He got on his feet, his skin cleared up and he looked like a well man. In the meantime he went out to his farm and I don't know whether he had medical attention or not. He came to town occasionally and about six weeks ago when he came to town I told him he had better stay here where he could have medical attention. I had him under five drops of arsenic and red bone marrow. Later on I examined him and found the hemoglobin about thirty. Just about that time I was reading up on pernicious anemia and saw about the arsenic and kept him on arsenic and red bone marrow, increasing the dose of arsenic, and when his eyes began to puff I decreased it again. Before I could get him to town however, he nearly dropped, he had a murmur, his pulse was 106, I believe, at that time. With one months treatment under the increased arsenic and red bone marrow his hemoglobin has become 103. That was the only point in this case that I think of beyond the fact that the anasarcal condition has entirely left his feet; his appetite is fine digestion and assimilation good. I agree with the Doctor that pernicious anemia often originates in the intestinal tract. I give a flush of one gallon of water every evening and he has made rapid strides, and I think that arsenic is a specific for the disease.

Dr. Waite.—It has been my good fortune, since coming here, to get hold of two cases of pernicious anemia, in which I have made blood examinations.

The first case was that of Mr. F. I saw him only once, and that was a few days before he died. At that time I got some blood with considerable difficulty. The hemoglobin estimation was below 20%, the leucocytes number 4,000, and there were only 448,000 red cells, which is a comparatively low red count. At that time he was in a very weak condition, and I did not get enough blood to make slide and cover glass preparations, with which to make future examinations.

The second case Mr. R., I first examined on November 22nd, 1901. He then had a red count of 903,000, leucocytes 6,660, 20% of hemoglobin. In this blood I found a great number of megaloblasts, which is one of the chief characteristics of pernicious anemia, On January 4th, 1902, I made another examination, and was very much surprised at the change in the condition of the blood at that time. The red corpuscles had increased to 2,133,000; the leucocytes showed a slight decrease, numbering 5,000, and the hemoglobin 50%. However, at the second examination, I found no evidence that there was any marked difference in the character of the cells. The megaloblasts were more numerous than in the first examination, and there were many megalocytes. Poikilocytosis was also marked. I have not been able to make another examination. Since there are a number of cases of pernicious anemia caused by parasites, I would like to make an examination of the feces for intestinal parasites in this case.

I am very much interested in Dr. Fletcher's paper. I heartily agree with him about the microscope. Personally, I think one cannot make a diagnosis of pernicious anemia without the microscope. I have seen many cases of secondary anemia, some of which were so severe that without the microscope they might have been called pernicious anemia.

Surgical Treatment of Dysmenorrhea.*

By Dr. H. B. Weaver, Asheville, N. C.

Dysmenorrhea, according to the derivation from three Greek words, means: difficult; menses; and to flow; difficult or painful menstruation.

Dysmenorrhea is not a disease per se, but it is a symptom of disease. The term should not be applied to all the disagreeable sensations, such as pains in the head, backache, neusea and vomiting, which may accompany the moliment, but only when these painful sensations exceed the physiological functions and become pathological, should they be classed as dysmenorrhea in their nature. When the suffering reaches such a degree as to demand relief, the case then is one of dysmenorrhea.

Dysmenorrhea may then be defined as a deviation from the normal menstruation, menstruation meaning, of course, a monthly congestion of the vascular system of the pelvis, with a partial exfoliation of the endometrium, which ralaxes the tension of the tissues, allowing a moderate flow of blood without pain.

*Read before the Tri-State Medical Society, at Asheville, N. C.

The classical division of dysmenorrhea into vascular, obstructive, ovarian and neuralgic, is wholly arbitrary, and while beautiful in theory it cannot be borne out by clinical experience. It is a difference in nomenclature rather than pathology. Rather it should be divided into Dysmenorrhal *en domitritis* and *uterine spasm.*

All true neuralgias are pains not due to inflammation, pressure or tension of nerves. Dysmenorrhea may be and often is associated with a "neuralgic diathesis," so to speak; or there may be a hysterical explosion from the central nervous system which simulates dysmenorrhea, but there is no certain indications that these neuralgic diatheses cause the dysmenorrhea, but rather both are the result of imperfect nutrition. Also, on the other hand, ovarian dysmenorrhea, so called, instead of the pain being aggravated by menstruation, it is relieved as soon as the flow is established and the vascular tension is relaxed, which has unduly pressed on sensitive nerves. Hence. it only causes confusion to classify dysmenorrhea as ovarian, neuralgic, congestive, etc.

As pain is the cardinal and characteristic symptom of the derangement, there can be no pain without nerve irritation, and there cannot be nerve irritation without a pathological lesion somewhere in the tissues which unduly excites the peripheral sensitive nerves.

If physiologists were agreed on the normal processes of menstruation, we could with a greater degree of certainty determine the true pathology of dysmenorrhea, but as the views of the best investigators of this subject are so contradicting, we must necessarily rely on clinical experience to guide us.

My experience in this field of labor for many years has lead me to some very definite conclusions in regard to the cause of dysmenorrhea.

1. Heredity plays an important role. It is found more in the class of the rich and highly educated who lead sedentary lives and take little exercise in the open air. They inherit a nervous temperament which is more susceptible to pain, They inherit a predisposition to defective organization of the genitive organs. In a large proportion of girls and young women belonging to this class, I have found this trouble when there was no evidence of existing disease, except a slight uterine catarrh. Most generally I found a small undeveloped uterus, with a conical neck, contracted canal, and oftimes with the characteristic "pinhole os," the uterus measuring not more than an inch and one-half to two inches in length. Keith says "dysmenorrhea is caused by malformation of the uterus due to want of proper development." To this may be added the thickening of the mucous membrane and congestion at the time of the menstrual flow. On examination, anteflexion is almost certain to be found in this class of cases. The thickening and congestion, plus the bend when it is extreme,is that cause of pain. Hence in this congenital class we find the majority of cases with induration or more or less stenosis at the internal os, due to degeneration, atrophy and contraction, the result of imperfect development, superinduced by heredity and environment.

2. On the other hand it does no avail that the uterus and the remainder of the physical organization are normally developed. for indeed we frequently find women with the finest physique and commanding presence whose incomplete pelvic apparatus condemns them to semi-invaladisism for the greater part of each month. Hence,in this class of cases dysmenorrhea is not caused by degeneration and want of development, but is dependent upon and results from disease. The disease becoming chronic may result in atrophy and stenosis of the canal, while at the same time there may be enlargement and tenderness of the organ above the internal os. Gill Wilie says "dysmenorrhea is caused by an hyperesthetic condition of the endometrium, especially at or near the os interum, often combined with more or less stenosis at this point."

In 37 cases of painful menstruation, 32 of them were traced to a local cause; in the 5 others, virgins, the affection was spasmodic.

In 23 of my cases which were subjected to curetting and intra-uterine applications, only two had marked stenosis. Twelve were entirely relieved of the dysmenorrhea, 8 returned with the old trouble, 3 were lost sight of and 2 received no benefit. Gardner found that "in 122 cases of dysmenorrhea examined, that 100 were suffering from some marked lesions of the pelvic organs."

Lephoror Smith says that "dysmenorrhea from which so many young girls suffer, is due to endometritis and the chief causes leading to this condition is tight corsets, exposure of the feet to wet and cold and chronic constipation." Hence, we conclude that all diseases which are subsequent to puberty, such as fibroids in the canal or substance of the uterus and the inflammatory diseases, with their congestions and exudates, may, by their obstructive effects prevent the free discharge of blood and thereby produce pain. In all cases connected with heredity and defective organization, recurring monthly congestion pro-

duces tension in the poorly nourished structures, which have thereby degenerated and atrophied, and have contracted the canal at the os internum, pain will be the inevitable result. In view, therefore, of what we have said, if our pathology be correct, there is evidently but one line of treatment to be pursued and that is laid in the pathway of surgery.

The drug treatment of dysmenorrhea, to say the least, is only palliative. It is of course understood that with the surgical treatment of dysmenorrhea, as in other gynecological diseases, there should be joined the proper hygienic and constitutional treatment whenever the case demand it. "The great triumph of American surgery consists in this; that it has approached nearer the fundamental principles and conditions of morbid anatomy and has attacked the diseased tissues *direct* rather than by the more circuitous course of other treatments."

The chief indications, therefore, in the treatment are these: To remove the obstruction, to relieve the inflammation and increase the stimulation and nutrition.

Their ends are attained by dilation, curettage of the uterus, and local application to the mucous membrane. If the cause be one of obstruction, without any extra-uterine inflammatory complications, dilatation, slight or great according to the case, should be first in order. Any good strong steel dilator will answer the purpose. In ordinary cases, especially in married women, an anesthetic will not be required.

Divulsion is seldom, if ever, required, the *stretching*, not the tearing of the tissues should be the aim in view Some cases should be rigidly done, while others should receive moderate dilatation and at different sittings. In regard to this and the amount of force used, each case must be a law unto itself. It is needless to say that in each and every case the technique should be thoroughly aseptic as the case demands.

In every instance there are two precautions which should be observed:

1. Never attempt an operation where there are existing perametritic inflammations with immovable uterus, bound down with exudates; and in no case should you pull down the organ with a vulcellum to the vulva, but rather steady it with a tinuculum in its normal position before you begin to dilate. After a thorough dilatation of the internal os, if there be an exuberance of the Nabotthion glands of the cervix, or if from the prolonged obstruction there exist an enlarged cavity above the internal os, with a hypertrophied endometrium with enlarged glands and excessive secretions, the use of the curette would be indicated. Whether a dull or a sharp curette should be used is a disputed point. I think it is more a matter of choice and the condition of the case. Either is perfectly safe in the hands of a conservative and dexterous operator. To tell exactly *how* to use the curette is a difficult thing to do; we can become adepts in this field only by prolonged practice and experience. We should have the most profound sense of touch that we may know whether we are scalping the exuberant tissue or *digging* into the mucous membrane. The curetting should be so thorough that the slick, easy feeling should be changed into a rough grating sensation which is easily recognized by the practiced touch, and when it is done the hemorrhage, which was smart at first will now entirely cease.

After every dilatation or curettage an application of some anodyne antiseptic and alterative mediciae should be made to the mucous membrane. For this purpose I have found nothing so well adapted for a large majority of such cases as Goodell's old prescription of iodine, carbolic acid and chloral, two drachms each of chloral and iodine well rubbed up together and dissolved in two ounces pure carbolic acid with heat. Wrap a small plauget of cotton tightly around an applicator, dip it into this fluid, pressing out the superfluous amount against the side of the bottle, then with a rotary motion send this up to and through the internal os, and if the endometrium is diseased push it gently clear up to the fundus. For fifteen years I have used this formula and have made thousands of applications without a single (as I now remember) untoward symptom. This happy combination in its nature is analgesic, antiseptic, alterative and astringent. It will not cause near the pain that a simple tincture of iodine will produce. Scarcely will you ever hear a woman complain of this medicine if the internal os is well dilated. The chloral and carbolic acid are both efficient local anesthetics, while the iodine is stimulant and alterative in its nature, and all are antiseptics. What more is there to be desired? It will meet a greater number of indications of uterine diseases than any other single medication.

But a large majority of cases of dysmenorrhea will not require curetting, only a moderate dilatation and application of this medicine to the mucous membrane are all that is necessary. The dilatation relieves the atrophy and contraction of the canal, the medicine stimulates and gives better nutrition, while they both relieve the hyperasthetic nerves by reducing the congestion and hence the pressure which causes this pain

Longstaff says that "dysmenorrhea is

successfully treated by application to the mucous membrane of the uterine cavity." The treatment consists of the injection of 10 minims of a 3% mixture of Churchill's tincture of iodine into the uterus, 4 to 5 times during the inter-menstrual period, beginning about five days after the flow has ceased and giving the last treatment about five days before the beginning of the next flow.

Munde, (peace be to his ashes) in his last work goes on to say; "The most efficient cure for all forms of dysmenorrhea is careful dilatation with the steel dilator to the extent of an inch or an inch and a quarter, using careful antiseptic precautions. After the dilatation it is well to insert an intra-uterine pencil containing 10 grains of iodoform.

For the permanent relief of membranous dysmenorrhea, which, fortunately, is rare in one's practice, there can be but little done. Frequent curetting and applications of alteratives during the inter-menstrual period are the best methods of treatment.

In addition to this, some authorities recommend the introduction of the spiral wire stem and wearing it for three subsequent periods, using hot vaginal douches even during menstruation.

Hence, we observe that the consensus of opinion among the best and latest gynecologists as regards the surgical treatment of dysmenorrhea consists in rapid dilatation, curetting and applications of emolient, antiseptic and alterative medicine to the mucous membrane of the uterus. In reviewing my 187 cases of all forms of dysmenorrhea, we find 96, or 70% relieved; 41, or 30%, received practically no benefit from this method of treatment.

In conclusion two cases must suffice as illustrating our method of treatment:

Miss M. consulted me, at the age of 25. She had good health up to the age of 18, when she began to experience pain at the menstrual period, which became more or less worse at each period until she was forced to seek relief from the excruciating pain, which she referred to the uterus. She was suffering from backache, leucorrhea, occasional ovarian pain, her digestion was impaired and her nervous system was much disturbed. She was very despondent and hysterical at times. It was evident that all her symptoms were increasing in severity. Upon examination a general congestion and tenderness of the vagina and uterus were found. The os externum pointed toward the vulva and the fundus could be felt through the anterior wall of the vagina. The cervix was rather small and conical. The sound was passed through the os externum with great difficulty at first. When it reached the internal os the pain was so severe that we had to desist for the present. The preparatory treatment was begun, which consisted of the introduction into the vagina of tampons of lamb's wool saturated with boroglyceride, with daily hot water vaginal douches of two gallons at 110 and 115 degrees of heat in a reclining position. After two weeks of this treatment the tenderness and congestion were much relieved, so that a small probe could be passed into and through the internal os with great but bearable pain. Here the congestion was well marked and there was considerable leucorrhea, indicating that cervical endometritis had been established. In the continuation of the treatment remedies were given to improve the digestion and relieve the existing constipation. Bromide of sodium and by oscyamus camphor and valerian were given to quiet the nervous system. Locally the hot water douch was continued; the os externum was dilated about one quarter inch and an application of the carbolic acid, iodine and chloral was applied to the cervical canal. A tampon of boroglyceride was introduced as before, allowing it to remain in vagina for 24 hours. At next sitting, four days after, I was enabled to pass a No. 10 sound without a great deal of pain, through the internal os. Then with a strong dilator, which was passed with difficulty through the canl into the os interum, we made strong pressure and dilated three or four times, then made application as before of carbolic acid, iodine and chloral, which caused no pain to speak of; then the tampon and douche as before. After this a sound was passed twice a week, with application of the medicine to the endometrium. The pain became less and less at each menstrual period and in four months it was entirely relieved and she is today in good health and spirits.

Second case: Mrs. J., aged 32 years, married for 10 years, sterile. She enjoyed good health from puberty, which occurred at 14 years until she was 18, when, after violent exercise, she was suddenly caught in a rain storm and suffered for some time with wet and cold feet which first produced irregularity in menstruation. The flow lasted only for two or three days and dysmenorrhea increased from month to month, and she began to have backache before and after menstruation with leucorrhea. When she was 22 years old she married and from this time on her dysmenorrhea increased, she had almost continuous backache with severe tensmus and frequent urination. For six years she had gone the rounds of the different doctors who had dosed her with opiates, plied her with temporary ap-

plications without any benefit whatever; and when she came under my observation shewas a physical and mental wreck. The uterus was tender to the touch, the fundus was easily discovered to be flexed over on the bladder and presented a large tumor-like body, it was almost immovable, there was great hyperesthesia of vagina. A speculum examination revealed a general congestion of the cervix and vagina, the cervix being smaller than normal. The canal was large enough, while the internal os was so small that the smallest size sound was passed with the greatest difficulty and intolerable pain. The cavity of the uterus was found to be large and capacious, measuring four and one-half inches. The structure of the endometrium was altered, being hypertrophied, sensitive and bleeding on the introduction of sound; there was a profuse leucorrhea sangio-purulent, with offensive odor; there was acute antiflexion. Her suffering had become so intolerable from month to month that she resorted to hypodermic of morphia or inhalation of chloroform. After a months treatment with tampons of boroglyceride, tannin and hydrastisus, the congestion and hyperthesia were so relieved that a sound could be passed up to the internal os without exciting a great amount of pain. The extra-uterine inflammation being sufficiently reduced to justify an operation, the patient being anesthetized with Gill Wilie's strong dilator I made rapid dilatation for near an inch, introduced the dull curette and removed a quantity of hypertrophied tissue of the endometrium, applied the usual mixture of carbolic acid, iodine and chloral. Then for the extreme antiflexion I introduced a hard rubber slotted stem, packed the vagina with antiseptic gauze. After 24 hours the patient complained of a great deal of pain radiating in every direction of the pelvis. On examination, I found the uterus so intolerable that I had to remove the pessary. I then made another application of the medicine, which seemed to be anodyne and soothing. The pain ceased. For a week I ordered the hot water douches with glycerine tampons. Menstruation came on with a less degree of pain, in so much so that the opiates could be dispensed with, and the tenesmus and bearing down were greatly relieved.

Three days after the flow had ceased (which lasted now for five days) I made another speculum examination and found the canal patulous, the introduction of a No. 12 sound causing little pain; there was free discharge of the secretions, the uterus was freely movable, but still bent on itself. After moderately dilating the internal os, I again introduced the stem in order, as I reasoned, to straighten the flexion and stimulate the tissues to better nutrition and relieve thereby the hyperthesia. In a few hours, however, the pain was renewed and became so intense that I was compelled to remove the plug as before. After this I tried the stem pessary no more on that case and sometimes, I doubt, with others, that it is a scientific instrument. But with this patient the intra-uterine applications with glycerine, borax and alum, accompanied with the hot water douch twice a week were continued for many months,when she was so well and free from pain that I dismissed the case as cured. And now after three years she is in good health and free from pain.

A few Practical Remarks on the Application of the Obstetrical Forceps.

By L. C. Stephens, Greenville, S. C.

It has not been many years ago when the question "How to apply the Obstetrical Forceps" was widely discussed in the Obstetrical journals and at tbe meetings of Obstetrical Societies. This writer was struck then with the great diversity of opinions expressed. That eminent men should hold such radically different views and practices at this late day was a matter of surprise and confusion to a mere tyro in obstetrics and make him doubtful as to whose leadership he should follow. One operator contending that the forceps were made to fit the sides of the child's head—the bi-paretal diameter—another that the forceps were made with reference to the pelvic cavity, and invariably the blades should be applied to the sides of the pelvis; and to deviate from this rule would inflict injury to the mother—the former equally as possitive as to compression of the fœtal head, a very important element of danger. Those who represent the former views constitute, as far as our researches have led us to go, about 35 per cent., and the latter about 55 per cent., and those who practiced both methods, or are governed by no particular rule, about 10 per cent. These are the views of men prominent in their line—the officers having charge of lying-in hospitals, &c., how it would hold good in general practice it is difficult to determine, but it evidently shows the unsettled opinions among those whom we regard as teachers. Of course, we would be skiltifying ourselves and insulting the intelligence of this distinguished body to hint that we can reconcile these very contrary practices or presume to indicate which method is correct. The study of the subject has been to us, as it has

been, no doubt, to this Association, an interesting one. One would calculate, at first thought, that in hospital practice the percentage of forceps deliveries was greater than in general practice, but our experience does not justify this position. In the former the conservative function of the instrument is clearly kept in mind and its employment strictly limited to the fulfillment of that function. On the contrary, the hard-worked practitioner, often with the most uninviting environment, unwilling to await the action of a uterus which seems to be growing more and more tardy. Every hour—far from home and night approaching, promotes his convenience and hastens the process by the application of his forceps and spedily ends the labor, notwithstanding, he knows in his heart he is going contrary to his teaching, "that the *hasty* use of the instrument is not to be commended," a rule which is honored 'more in the breach than in the observance.' And yet no harm results, provided, always, however, a proper regard is had to the condition requisite, viz: an accurrate diagnosis of the presentation and position and a reliance upon a proper performance of his own manipulation. The conclusions arrived at, then, by this writer, whose experience covers a period of 35 years and whose percentage of forceps deliveries considerably exceed that of hospital practice by at least 2 per cent. after careful consideration of the various methods adopted, mindful at all times of the exercise of that necessary skill and gentleness suggested by the words of Blundell, when he said *Arte non vi* should be engraved on one of the blades of every forceps as a precautionary reminder; that the obstetrician in the possession of an instrument whose blades are less than three inches at their widest portion and whose tips measure less than one inch, will have cause to regret more deaths to children than he who uses one of these dimensions. And this opinion is not founded on the fact, altogether, that this operator regards with most favor the instrument used by himself and with which he is most familiar, but is the deliberate conclusion arrived at after a somewhat mature experience of the relative advantages of the one over the other. Take, for example, the Hodges and Simpson, two of the most popular in use to-day, representing the types of instruments of these opposite schools in Europe and America, and compare them. The former is $2\frac{1}{2}$ inches between the blades in their widest part, with tips only one-half inch. The Simpson is 3 inches and 1 inch respectively. Does it not stand to reason that the latter has less compressing power, and its greater cephalic capacity offers less resistance to the rotation of the fœtal head when embraced by the blades? The consequence being that it is a matter of little concern whether the head is seized in its bi-paretal or antero-posterior diameter, so that too much traction is not exerted. The longer shanks of the Hodges, making it suitable for application to any portion of the pelvis accounts, possibly, for its greater popularity—the Simpson having a shank a little over half as long. Elliott's, Bedford's and Lusk's, are modifications of this instrument. For axistraction Simpson has also modified Tarnier's, the traction rod being fixed upon it. "The Studies of Braune, Shreider, Band, Hocmier and Benckiser, Pinard, Boissard, Hart and Barbour have led modern obstetricians to regard the birth-canal as a cylinder whose axis extends at first downward and backward until it meets the sacral segment of the pelvic floor, which by the part that it plays in the dynamics of parturition turns the axis of the birth-canal to a direction upward and forward" (Hirst). This being assumed as true, then, with our Simpson (or some of its various modifications) applied to the sides of the pelvis and the head being engaged at the Superior Strait—(a fact by which we can conclude that the birth-canal and head are proportionate)—we can seize the head and extract with a reasonable degree of confidence, that we have exercised a measure most conservative to both mother and child. Should the descent and rotation, however, of the presenting head be retarded by its evident disproportion to the birth-canal, then a topic for discussion arises foreign to the title of this paper, viz: the choice between forceps version, craneotomy and cæsure, an Section, a field which we are not disposed to enter at this time.

The Passing of the Preceptor.

By Edwin Ricketts, 408 Broadway, Cincinnati, Ohio.

While the demands in the required scientific preparatory and final courses are considered amply adequate for graduating students in medicine, it is unfortunately that the preceptor is no longer looked upon as an important factor in the best building of any foundation.

He was a primary and local medical student overseer. Today he is an announced figure-head, for his name only appears in the catalog of this or that college, which simply shows that he has sent one or more students. Many times his name, as preceptor, is given the institution which the student enters. There were grave respon-

sibilities resting upon the shoulders of the old preceptors in advising any young man to read medicine. By this undesirable candidates were prevented from taking up the study of medicine.

How different today?

He graduates from a college or academy in June to enter a medical college the following October, not even having the duties of one physician toward another explained to him.

Frequently is it that he enters medicine as one entering the mercantile field, for the greatest financial gain.

With many a young graduate no responsibility has been laid on him until he has served the prescribed four years at a medical college, unless it be that he has been a house surgeon for eighteen months, attending the poor in some hospital. From this charity service he is in great danger of becoming in his house to house work dictatorial in manner, to find that private patients cannot be managed by arbitrary hospital rules, as charity patients.

Those who served under a preceptor who was a competent physician and surgeon, for one or two years previous to graduation, was to gain soon that which is of the greatest value.

It was through him that he was taught how to bring forth his greatest tact, in consideration, in gaining confidence and in the successful management of each individual case, to a desired or fatal issue.

It was here that the importance of the highest type of professional integrity was impressed upon him; it was here that he was first and given best to understand that professional secrets were to be held sacred by him.

To the average graduate of this day such is a new lesson which must be learned and for the late learning, there is to be many failures that do not come so often to those who learned the lesson earlier and under an honored preceptor.

Report of an Unique Case.

By John L. Lelks, M.D., Memphis, Tenn.

On Wednesday, Feb. 20th, I was called to see L. N., aged 32, weight about 160, height about 5 feet 7½ in., well nourished and florid complection, of good family history; that is to say with no history of tuberculosis, syphilis, cancer or other grave hereditary disease. He has a brother who several years ago suffered a hemiplegia. No other condition or history, either maternal or paternal, could have any bearing whatsoever upon the case to be hereinafter reported.

Upon examination I found the young man suffering intense pain in the abdomen, not localized further than being in the right side, anywhere from umbilicus to McBurney's point. He had suffered some nausea, was very tender over the entire right illiac region. Rectus and other abdominal muscles on that side were tense. The right leg flexed upon the thigh and thigh upon the abdomen. His temperature was 100, pulse 100. This was about 6 P. M. He was removed to the hospital at once, where preparation was begun for operation.

A large dose of magnesium sulphate was given, ice pack placed over appendix, colonic lavage was ordered and symptoms watched until the following morning at 9:30, when I saw him, at which time his bowels had moved three times. Pain and tenderness had become localized, temperature 101, pulse 108. Being unable at that time to get the operating room, the operation was set for 12 o'clock. At this time temperature was 103, pulse 120. Assisted by Drs. Terrill, Clark and McGee, I opened abdomen by splitting fascia and muscles, removed appendix, closed abdomen without drainage.

Thus far, gentlemen, you have noted nothing out of the ordinary as I have reported this case, there were, however, some remarkable features and a very rare and unaccountable complication which first manifested itself as the patient became thoroughly anesthetized. He seemed to take the anaesthetic (chloroform) fairly well, but about the time the anaesthetizer announced the fact that the anaesthesia was thorough enough for me to assume my duty, there was noted a small hæmorrhagic spot or echymosis in the sclerotic of the right eye, which was referred to at the time by the anaesthetizer as of unusual occurrence. As the operation progressed and was nearing completion, this ecchymosis became general in sclera of that eye, likewise also the left eye had become involved. At this time the patient began to bleed also from the mouth and nose, and he was lowered from the Trendelenburg posture. The hemorrhage now seemed to have checked. His pulse was the same, but full and bounding, his condition, save the manifestation just referred to, appeared to be equally as good as upon entering operating room. Upon the hypothesis that this condition might be due to some hæpatic obstruction, eight half grain doses of calomel were ordered to be given. I saw the patient again at 9 P. M., at which time he was resting comfortably, suffering no pain, was quiet and expressed himself to me as feeling better. The ecchymosis pre-

viously referred to were by this time quite dark, but no secondary hemorrhag or indication of the probability of a recurrent hemorrhage could be fore-seen. The next morning at nine o'clock the patient was seen; his condition was noted to be very fair; he had spent a good night; had not suffered from nausea, indeed had slept some during the night. His pulse was 86, temperature normal, kidneys acting sufficiently, bowels had not moved, through calomel had all been given. There was no distention of the abdomen and I felt quite well pleased and satisfied that my patient would soon be on the road to an uninterrupted recovery. At 2 o'clock P. M. of the same day, when some three miles from the the hospital, I telephoned and inquired as to his condition at that time, when to my suprise, the nurse informed me that within the previous hour the patient's pulse had run up to 120; that his temperature was normal, the abdomen was distended, and he was vomiting bloody serum. He was restless, was complaining of pain, and labored breathing, as would be noted in œdema of lungs, and she could only thus account for the sudden and rapid increase in pulse rate. His bowels had not moved. An enema ordered to be given at once, and at 3:30 P. M., I again telephoned and was informed by the nurse that the patient was growing restless; that his pulse had gone up to 130, temperature 1002-5 no accountable reason could be assigned. I arrived at the hospital at 4:30 P. M., finding the condition of patient in extremity. It was at this time noted first that a secondary hemorrhage had occurred, that the sclerotic ecchymosis had increased, that the dark discoloration was somewhat redder in hue, and that the sclerotics were so distended with extravasated blood as to almost prevent the possible closure of the lids. At this time it was also noted that a perpura hemorrhagica or cutaneons extravasation of blood had occurred over the entire surface of the body from head to feet. This extravasation being more marked over the flexor surfaces, in the axillary and gluetal regions. In appearance I could not more aptly describe the condition of the cutaneous surface than to say that it resembled in the universality of its involvement of the skin without pathologic character a confluent case of smallpox. The telangiectasis in some instances projecting apparently beyond the general outline of the skin. From all of the cutaneous surfaces from the crown of his head to his feet this ecchymosis was well marked. He was bleeding also from the mouth and stomach, and he was evidently also bleeding from all mucus, and perhaps serous surfaces, as well as from the entire cutaneous surface of the body. In this state he died within eight hours from the beginning of the secondary hemorrhage, remaining conscious to the last. Pulse full and bounding to within four hours from time of death.

Among the possible aetiological factors, in such a condition as was herein noted, might be assigned the following.

1. Infections.
   - (1. Small-pox
   - (2. Intestinal
     - (1. Colun baccillus.
     - (2. Streptococcus.
2. Toxic.
   - (1. Bile
   - (2. Chemical
     - (1. Chloroform.
     - (2. Æther.
     - (3. Alcohol.
3. Cachexia.
   - (1. Malignant or
   - (2. General.
4. Nervous.
   - (1. Hysteria
   - (2. Spinal cord disease (1. Locomotor Ataxia.
   - (3. Apoplecic
5. (1. Peliosis Rheumatica.
6. (General perpura due to mal neutrition.
7. (Scurvy.
8. (Hæmophilia.

I do not profess to know what this condition was, but suffice it for the lack of better knowledge as to the pathology or pathogenisis, I have stated that the patient died as a result of paralysis of the vasomotor with consequent general capillary hemorrhage. I report the case to you, gentlemen, as one of exceeding rare occurence. Unfortunate and sad indeed, but which must befall every one of us who practices medicine and surgery. I ask you, if you please, to offer if you can a solution of, and a name for the condition which I have as truly and conscientiously as I know how outlined to you.

Lyceum Building.

An Address on "The Consideration of the Physician from a Philanthropic Aspect and as a Member of Society."*

By J. W. McCanless, M.D., Chesterfield, South Carolina.

The world is still moving onward with a firm and energetic footstep, but the Western halo of the 19th century has faded and and gone, its steady footfall receding into the mystic vales of eternity, far from humanity's ever listening ear. The one lone star of hope is the only beacon light that has hung its flickering lamp out in the sky, dark and lowering, once aglow with the glories and grandeur and possibilities of the evening of the 19th century.

We stand to-day in the glorious dawn of the 20th century, with the evening shadows of the 19th century receding back o'er the rugged heights of yesterday, and we catch inspiration from the eloquent strains of the dawning 20th and resolve to make its morning more glorious and illustrious than the evening of its dead sister century.

O, what a world of usefulness and sublimity of action is before the physician of the 20th century! What an epitaph can be enscribed upon his monument when he has been laid to rest—"he has made the deaf to hear, the blind to see, the dumb to speak and the lame to leap like an hart."

Ages ago his work was associated with witchcraft, and whatever was done to relieve suffering humanity was ascribed to supernatural agencies and not to his special knowledge or skill. But to-day the practice of medine stands out paramount and pre-eminent a science and not an art. Centuries ago it could have been dispensed with as a useless remedy, but to-day she is an absolute necessity.

The physician deserves a great deal more homage and praise, as well as money, than he gets, and yet if he is called and fails to go he gets more than he asks—a genteel cursing. His charges are not near what they ought to be and his collections are worse and yet, if he fails to go when called he is censured, because he won't do something for nothing. And right here is where the philanthropic part comes in.

Cold, freezing weather does not deter him from his chosen duty. He goes while others sleep. When the world is wrapped in a winding sheet of snow, when the sky is covered by dark threatening and angry clouds, with not even a star to light his way, when the cold, pinching wind is howling a dirge and not a sound breaks the awful silence of the night, save the lone-some howl of some wayfaring dog as he bays the whispering winds, he moves on his errand of duty to relieve some poor son of Adam. In the distance he sees a dim light coming through some crevice, in the squallid hut and he moves on till he reaches the house. Cold and almost frozen, he fastens his faithful horse to take the storm till he goes in and examines his patient. He opens the rickety door and beholds a female with hair all dishevelled, face smooty, head tied up in a towel, holding in her arms a suffering and moaning child. The little fellow tosses his head from side to side, he moans and calls for mama in unintelligible language, he cries out when some sharp pain racks his little body, his eyes half closed are looking back over his head, his little body is drawn backward by the contraction of the dorsal and lumbar muscles, his spine is in a curve, his head and heels only touching the pallet or bed when lying down. His pulse can scarcely be counted, his tongue is dry, he calls for water; during this examination, the mother keeps her eyes upon him, in whom her earthly hope lies.

The physician makes his diagnosis, gives treatment and starts back through the unabating storm for home. He attends the little patient for days with scarcely any hope of recovery, but finally the little fellow pulls through, the physician presents his bill, and receives as compensation for his faithful work and loss of rest for three weeks, two chickens, one bushel of potatoes, fifty bundles fodder, for which a receipt in full is asked. The doctor pleads for more pay, he gets more cursing and finally leaves with only one-fourth the bill paid, and a genteel good cursing for his faithful performance of his work of three weeks. And as the days and weeks and years go by this physician has given to suffering humanity nearly three-fourths of his income or practice. And this is occurring all through the physician's life. He does more and gets less for it than any other man who has an honest profession. He becomes a benefactor, a philanthropist to humanity.

There are men who have more money and whose salaries far exceeds that of a physician, but, in a lifetime, there is no man either moneyed or otherwise, who does more for society and for humanity than the physician.

He stands by the couch of the suffering patient, racked with pain and burning fever and banishes the pain and allays the fever. He fills the heart of a dispairing mother with hope, and wipes away the falling tear from swollen eyes of a sorrowing sister, he dispels the grief of a heartbroken father and raises the bowed head of a disconsolate

*Read before the Medical Association of South Carolina.

brother, and when medicine fails to cure he points the tired soul to that far-away land of health, to that land from whose "bourne no traveler ever returns."

The physician never hordes up his money; if he is prosperous and successful in collections, he scatters his funds broadcast and hence becomes a necessary benefit financially to any locality. He scatters seeds of kindness, he heals the sick, he binds up the broken bone and hence becomes a stimulus to every enterprise in any community. He is following in the steps of Him who walked upon the glossy bosom of the Sea of Gallilee. He becomes both a physician and surgeon as Christ did, for when an eye offends, he plucks it out, and he makes the limp to walk as a well man.

What has the physician accomplished for society, for the church, for affairs both State and National, and what a feeling of general brotherhood has he engendered socially! His power and influence and utility are not confined to his profession. His generalship and leadership are not alone acknowledged in the domains of surgery and medicine; his success is not alone courted, when the night lamp burns low and the light treat of anxious ones is muffled, his help and guidance are not alone called into play, when the evening curtains are drawn anxious friends stand around the couch of the suffering loved one like a Moses who smote the rock and living waters gushed forth, his subtle power is not alone felt, when he takes the withered hand with its long, bony, fleshless fingers into his life-giving grasp and bids the prostrate form to arise, his sublimity of action is not seen alone; when with gentle hands he smoothes back the disheveled hair and with a mother's gentleness he presses the fevered brow, his profession calls him not alone to the palace and throne but his familiar form is seen, as well, in the lowly hut of the humblest cottager; his power and influence is admitted not alone in time of peace, when her silver bells tolls the evening hour and silence is resting like a benign benediction o'er the world, but upon the bloody field amid the clash of arms and the roar of artillery, the shouts of the victorious and the wails of the vanquished, where the dead and dying lay, his mission calls him.

No community or corporation is complete without the influence and co-operation of the physician. His voice may be heard to ring out in eloquent strains upon the hustings. Questions of the greatest import, both public and private, are discussed and decided by his mature judgment and deliberation. The church as well as the affairs of State has a place for his usefulness. Corporations and syndicates, trusts and monopolies have shared alike his approval, when organized for the benefit of society, and his unmitigated condemnation when public safety and security were imperiled. His deeds of charity and kindness have been chanted in both song and story, in history and biography. His sphere of usefulness is confined not alone to his profession, his philanthropy is not limited to the bedside, and though, with a broken heart and a sorrowful soul, he mingles his tears with those of a disconsolate mother, he likewise has a sensitive nature and a refined feeling for the public weal or woe of society.

Not like any other profession, does he call for remuneration before service is rendered, and many times after he has done his duty, he falls far short of receiving his merited recompense, but at all times and under all circumstances and conditions, in the beautiful and inviting homes of balmy spring time, when birds carol their matins and vespers to replying mumuring brooks, when the world is in love with itself, as well as when she is robbed of her foliage and verdue by the oncoming of the biting frost, when the world smiles and her landscapes and distant hills throw back a beckoning smile to valley and stream; in early morn when the earth is fresh and gay, and at twilight's blissful hours, when our thoughts turn to thoughts of love; at midnight's hallowed hour when sleep, sweet sleep, is kissing down weary lids in a calm repose, in sunshine and in storm, when angry clouds roll and lightening leaps from the angry bosom of the mad, oncoming storm cloud, when the low distant peals of thunder shake the world from center to periphery, at all times we find the conscientious, dutiful but half starved physician on his mission of duty, restoring the shattered, nervous system, building up a broken down constitution, and by his words of wisdom and kindness giving hope and courage to the fainting heart that was sinking in dispair.

By his profession naturally he comes nearer coming in contact with all classes and conditions of humanity than any other profession; therefore, an opportunity is afforded him to either bless or curse society, to either enoble him, who is standing on the brink of ruin and chaos or sink him deeper down into the mire and miasm of an eternal wretchedness. Who can tell or give the correct value of such a man to society? What individual can gainsay his usefulness to the world?

But to-day were you to sound the toxins and in interrogatives commanding in tone, call for the names of men most noted in

history and biography, would the physician's name appear upon that roll of honor; Though his work is faithfully, skillfully and quietly done, no history chronicles his deeds, no muse sings his praise, no orator in tones of thunder and in language eloquent in diction, passes a eulogium o'er his little unknown mound; yet his lasting impress upon the world and humanity is stamped indellibly; though his deeds are not chronicled in history and couched in language burning with eloquence; though his name is not heralded in song and story, yet he leaves an example that the world may well be proud to emulate. Go yonder into the highways and hedges of life, into the humble and homely cottages of the poor and ask that once deformed orphan boy who now rejoices because his deformity has given place to a symmetrical figure; yes, ask him, who, in his mind's eye, is the greatest man that he knows.

Go younder into the hellish slums of the city and ask that reprobate who once knew no God, acknowledged no religion, nor professed any creed, who regarded neither law nor order, ask him, who it was that broke the iron fetters of debauchery and gave him back to the bosom of his family a regenerated man.

Go ask the fond mother, as she presses the darling of her life to her bosom, who, when all others had deserted her, stood by her side and ministered to her cries and staid the racking pains that distorted her frail body; ask the little child as it tosses its head from side to side and in moments of consciousness calls for mother; ask that child, whose brow was once scorching with fever and whose little form was distorted by sharp, spasmodic pains, yes, ask that child who is the greatest man he knows.

This name is not chronicled in biography for the world to read, but upon the pure tablets of a childish heart and in the loving bosom of a devoted mother, the physician's name is written in letters of gold. This character is not marked by the sordid ambitions of the world, but his every heart throb beats in unison with the sweet songs of nature through whose varigated windows he looks to nature's God.

When the world is wrapped in the fond embrace of eventide, "when drowsy tinklings lull the distant fold" and the cattle upon a thousand hills have returned to the old barnyard for a night's repose, when the singing of the birds in swaying branches over arching murmuring streams is hushed, we find the physician in his humble home with his soul burdened by the care of some suffering mortal, yet his name is not enscribed upon fame's eternal parchment.

But though his name be not enscribed upon the list of earth's immortals, yet, when the last, long sleep closes down his weary eyes in an eternal slumber, his monument will not be an imposing shaft of marble, but it will be a living, a walking monument to his honor, a life-long invalid restored, a distorted and deformed body recast in its mother's image and made comely and able to fight life's battle, pains that once almost cut short life's feeble thread made to vanish from some chronic rheumatic as if by magic, these and a thousand others will be monuments more durable than marble and more lasting and imposing than a gilded shaft of brass that will sing his honor and praise till the Great I Am calls for him to give an accout of his deeds.

And as we stand, at the end of life, by a simple ivey crowned grave from the voiceless lips of the unreplying dead there comes no sound, but in the night of death, hope sees a star and listening love hears the rustling of a wing. He sleeps beneath the shadows of the clouds regardless of sunshine or storm, in his windowless palace of rest, conscious of the fact that his was a duty well done.

The State Society and the American Medical Association.

By G. W. Pressly, M.D., Charlotte, N. C.

Most of our members know that the American Medical Association has been reorganized during the past two years, but perhaps not many know just what this organization means or how it affects our own State Society. The Secretary has been asked to explain as far as possible what this scheme will do for the State Society.

The Reorganization of the American Medical Association.

Under the old constitution any Society could send delegates to the Association; one delegate for every ten members and, of course, this made an unwieldy body of more than 1200 members. But size was not the only objection to this plan for two often the Associatiou was dominated by the particular locality in which it met and its national character was entirely lost in the host of delegates from near-by points. Under the new constitution the Association is divided into two bodies, the Scientific and the Legislative. In the Scientific all the members can take part under some one of the different sections. In the Legislative only delegates representing the different State and Territorial Societies can take part. The Legislative body is known as the House of Delegates, and will consist of not more than 150 members. Each State and Territory will be entitled to one dele-

gate for every 500 members in their regular organization. The House of Delegates will transact all the business of the Association, leaving to the rest of the members the scientific part alone. This plan makes the House of Delegates truly representative of the entire nation and the business of the Association can in no wise be influenced by the locality in which it meets.

The House of Delegates will select the nominating committee and, in fact, attend to all the business of the Association.

The Scientific branch remains practically unchanged. All the regular members of the Association will take part in the scientific work under whatever section they may choose. The work will be divided into 12 sections, Practice; Surgery; Obstetrics and Gynecology; Ophthalmology; Laryngology; Otology and Rhynology; Pediatrics; Materia Medica; Physiology and Pathology; Stomatology; Nervous and Mental Disease; Cutaneous Medicine and Surgery; Hygiene and Sanitary Science.

The regular members must be members of their State and local societies and they will be required to pay the annual fee of $5.00. which will include the Journal for one year. The members may by a two-thirds vote have the right to pass on any legislation before the House of Delegates, and a majority vote of the regular members will be binding upon the House of Delegates.

What is Asked of our State Society?

The following resolutions recommended by the Committee of Reorganization were adopted at the last meeting of the Association:

c. That the State societies unitedly agree to federate themselves in the American Medical Association, and as a preliminary to this adopt a uniform organic law in regard to certain fundamental principles: viz., to divide their annual meeting into two branches, legislative and scientific; the legislative branch to be as small as is compatible with representation from all the county societies, and to be composed of delegates elected by the county societies.

d. That membership in the county or district societies shall constitute membership in the respective state society without further dues, and that no one be admitted to membership in the State society except through county or regular district societies.

e. That funds to meet the expenses of the State society be raised by a per capita assessment on the county and district societies.

f. That a united effort be made to influence special societies to limit their membership to those who support the regular organization, and the seminational and miscellaneous societies to encourage systematic organization, by covering a definite territory and also by limiting their membership to supporters of the regular organization.

g. That each State society create a permanent committee and a fund for the purpose of enforcing all medical laws in every part of its territory.

h. That each State society co-operate with the American Medical Association and with the other state societies in solving the problems now before the profession relating to medical education, medical legislation, reciprocity, licensing, etc.—*Jour. A. M. A., Vol. 38, No. 7.*

What this Means to our State Society.

We are asked to become a living, working part of the National Association. We are asked to divide our annual session into two parts, Legislative and Scientific, the Legislative to consist of delegates from the county and local societies, the other members to carry on the Scientific part of the work. It is desirable to have the Legislative branch as small as is compatible with full representation of all parts of the State. We should at least have one delegate from each county.

We are asked to limit our membership to those who are members of their county or district society.

All dues are to be paid to the local society. The expenses of the State society are to be met by a per capita assessment of the local society. This means that we must go to work at once to organize a local society in every county and city in the State. In fact it means a complete reorganization of our State society.

What is Gained by Doing What is Asked.

It makes the Medical Society of the State of North Carolina an integral part of the American Medical Association. It will put our members in line for membership in the national organization. On page 44 of the committee's report, which were adopted, we have the following:

"The first proposition and the most important of all, is that no one shall be allowed to belong to any higher society until he is a member of and supporter of his own county society, and this membership in the lower must be continued."

State societies are asked to adopt this as their first principle in organization.

So unless our members are members of their local society they can not get into the national organization. The committee recommends that:

"Each State society must insist (1) that

there must be a society in every county where there are ten regular physicians; (2) that physicians must belong to their own county society, (an exception should be made where one lives much nearer to the place of meeting of an adjoining county than to his own. In such cases his own society should have the privilege of granting him the right to associate with the other); (3) that where the population is scattered and physicians few, two or more counties may unite and form a district society."—*Same report pp, 9, 47, 48.*

A system of blanks and books are also recommended.

"Preliminary to any attempt at organization, a system of books and blanks should be adopted, This should be done by a small committee representing all the States. These could be printed and supplied by the National Association at a nominal cost, the work being done by The Journal plant. The county books and blanks should be devised for recording the name, address, qualifications, etc., of every physician in the county legally entitled to practice, with special designation for those who are members of the recognized society. The blanks should be gotten up for the purpose of conveying by the secretary of the county society this information, but in less detail, to the secretary of the State society, who would have a book arranged for recording it annually. The county secretary will report to the State, the removals, the accretions, the additions, deaths or withdrawals from the society, whence they came and, when possible, where they go; this information to include also all legally qualified physicians who are not eligible to membership."

The adoption of this plan means an increased membership in the State society. We have in round numbers perhaps 1500 doctors in the State and only one-third are members of the State society. As it is we have no effective way of reaching the outside 1000, but with a local organization in each county the society could come face to face with every desirable man in the State, and we should at least double our membership. So that the per capita assessment need only be one half the annual dues. Our Treasurer, instead of looking after 500 individual members, would only have 50 or 75 local societies to keep track of and collect from.

The scientific part of our meeting would not be disturbed by the roll call of elections and the wire-pulling of the politician.

The Advantages of Local Societies.

"It requires but a moment of reflection to perceive that a State society composed of delegates chosen annually by the professional organization of each county or district, could not fail to represent correctly the social, scientific, and legal interests of the profession of the State; and that a national society composed of delegates similarly chosen annually by each of the State societies would be equally the true representative of all the interests of the profession of the nation. It is equally apparent that such a complete national professional organization would offer the greatest possible facilities for collecting and concentrating the influence of the profession for any great or important object, whether relating to the educational and scientific advancement of the profession itself, or the promotion of the sanitary interests of the whole people; and equally efficient for radiating the spirit of investigating, mutual respect, and generous emulation developed by the annual contact of the most active and enlightened minds in the national meetings, back through the State organizations to the remotest county and parish in our great republic. It is hardly necessary to remind our readers that a representative national organization capable of efficient work in the various directions here indicated has for its foundation the primary organizations in each county or district. On the degree to which these can be made to include every active and intelligent regular member of the profession, and the activity with which their regular meetings are sustained, will depend, in a very great degree both the permanency and value of the State and National Associations. It is here, in the incompleteness of the primary local organization of the profession in many parts of our country, that we trace nearly all the important defects in the practical working of our present State and National Associations." (Editorial, Journal American Medical Association, Jan. 15, 1887.)

In general then the American Medical Association asks for the reorganization of our State society after the model of its own constitution.

The local or district societies will have the same relation to the State society as the State society has to the American Medical Association. Except that membership in a State society does not carry with it membership in the National Association, but membership in a local society will include membership in the State organization.

It is to be hoped that every member of the society will consider the matter carefully and come to Wilmington in June prepared to vote on this question, which may mean so much to the profession of our State.

Typho-Malarial Fever from a Clinical Standpoint.

By Wm. E. Anderson, M.D., Farmville, Va.

I am aware that it is claimed by some that there is no such disease as Typho-Malarial Fever. It is believed, however, that diseases, the existence of which some of us deny, and matters touching our profession, concerning which we hold different opinions, are subjects, from a discussion of which we will derive most benefit in the deliberations of a body of this character. No medical society in existence, and indeed no body of medical men in the world, should be more capable of discussing intelligently, or more competent to pass judgment upon the subject of Typho-Malarial Fever than the members of the body, composed of practitioners of Virginia and the Carolinas.

When I was requested to contribute a paper to this Society in the department of practice, I naturally considered the subjects upon which we, as physicians, might differ most, and from a discussion of which we might derive the greatest benefit.

It is an old and well worn saying that doctors will disagree and it is true in a measure. We often differ in opinion as to questions of minor importance; as to application of certain remedies to well known conditions, or as to the quickest and surest methods of restoring to health and vigor the diseased body or mind in any specific case. We sometimes differ as to the diagnosis in individual cases, and may entertain honestly and sincerely a very material difference of opinion in cases where much may depend upon unanimity. I confess, however, that it is to me a source of some surprise that in a body of physicians practicing in the same locality, under similar conditions and surroundings, and somtimes on the same patient, there is a division of opinion as to the very existence of a disease which we are called upon continually to combat. I repeat the assertion that no body of physicians should be so familiar with Typho-Malarial Fever and all of its incidents, as those practicing in Virginia and the Carolinas. It is a portion of our inheritance—our climate and soil have produced, and seemingly nourished it. It is an incident of our geographical and climatic position which we describe as a "happy medium" between the North and the South. This is peculiarly true of many of us who, like the writer, practicing in sections midway between the mountains and the sea, meet with but little of the genuine Typhoid, on the one hand, or of the true Malarial Fever on the other.

We do, however, get the blending of the two—the hybrid, as this form of fever is often called. Typho-Malarial Fever as I find it in practice, is a separate and distinct disease from either Typhoid or Malarial—a fever partaking of the nature of each, but lacking many of the distinctive characteristics of both. The term "Typho-Malarial Fever" was first employed by Dr. Joseph J. Woodward, Assistant Surgeon in the United States Army in 1863. He proposed that name to denote the union of the two types of fever. Many years prior to that date, the opinion had been held and taught by eminent physicians in those sections in which Typho-Malarial Fever is prevalent, that Remittent Fever and Typhoid Fever were often associated. Not only did the former present Typhoid phenomena, or the Typhoid state, but the two types of fever occurred not infrequently in combination. Such were the views and teachings of Prof Dickson, years before the name "Typho-Malarial" was adopted. Dr. Drake maintained this opinion, calling the combined affection remitto-typhus fever. Dr. Woodward, who, as I have stated, first employed the term "Typho-Malarial Fever," found this disease one of the serious difficulties with wich he was called upon to contend in Virginia in the years 1862–'63. It may be added, however, that there were some other troubles which the United States Army was called upon to confront in that State about the same time, which were equally as disastrous to its mortality record.

Typho-Malarial Fever prevailed largely among the U. S. troops in different localities throughout the Civil war. In the Army of the Potomac in the Peninsula campaign of '62, it was known as "Chickahominy" Fever;" at many other points it was called "Camp Fever." I am not wedded to the name "Typho-Malarial," as designating this form of fever, but I do believe that it is the best term to apply, as it indicates more nearly the conditions found. It is not, however, my intention, nor is it within the scope of this paper, to give any elaborate description of the disease, its etiology, etc. nor shall I undertake to locate or describe its specific germ. It is unnecessary for me to enter into an elaborate explanation or discussion of how Laveran's haematazoa and the typhoid bacilli are each struggling for supremacy in this disease, and each claiming the right of way; nor how in such instances each seems to declare "honors easy," and concludes to pursue the

*Read before the Tri-State Medical Association of the Carolinas and Virginia at Asheville, N. C., Feb. 22-27, 1902.

even tenor of its way, trying to ignore the presence of the other.

I shall not undertake to deal largely with the morbid anatomy. I have had no autopsies on which to base statistical details; no post mortems of which to give you the record, but few fatal terminations, for which I am duly thankful. This may be due to my favorable surroundings, practicing as I do in one of the healthiest localities within the three States; still, I am none the less thankful for the results.

Austin Flint says of the morbid anatomy of this disease: "In Typho-Malarial Fever in addition to appearances characteristic of malarial disease, the abdominal lesions which are essentially those characteristic of typhoid fever, are found after death."

It is my purpose, however, to deal more with the clinical aspect of the disease; tell it to you as I see it and have been seeing it for the past fourteen years in that section of Virginia lying between tidewater and the mountains. I feel the more competent to speak upon the subject, owing to the fact that the first three years of my experience was in Prince George county, extending along the head of the tidewater section, where in this disease the malarial element most frequently predominates; and since that time one hundred miles further west, in sight of the Blue Ridge Mountains, where the tendency is for the typhoid element to take precedence.

The majority of cases of Typho-Malarial Fever begin with a chill, followed by continued fever. I say continued, because in these cases the fever is more frequently remittent than intermittent, but it may be either or both, and it may later on, if the typhoid symptoms become prominent, show very little variation. Bronchitis, Congestion of the lungs, and less frequently Pneumonia, will occur at the beginning of the attack. Nausea and vomiting often occur early, and may become prominent symtoms. Matter vomited is of green or yellow tint; pain is referred to the region of the stomach; there is tenderness on pressure over the epigastrium, and all other symptoms of a periodical fever with which physicians are familiar.

While watching closely to determine with just what form of fever we have to deal, the patient develops a severe and intractable headache, or possibly a severe facial neuralgia, with repeated chilly feelings, pains in the back and legs and probably nose bleeding. In some cases, though not in all, there will be a steady rise in the fever, evening record probably a degree higher each day, reaching as high as 104 or may be 105; pulse 100 to 120, but of low tension; tongue coated and white, and the abdomen slightly distended and tender, with other similar symptoms indicating the typhoid condition, with which you gentlemen are all familiar.

When I find a patient presenting these two classes of symptoms—all, or a portion of them, or possibly but a few of them, well marked, but mingled to such an extent as to give a fever partaking of the nature of both typhoid and malarial, and not distinctly or definitely either, I diagnose the case Typho-Malarial Fever and treat it accordingly.

The symptoms may appear in the reverse order; that is, you may have the typhoid conditions in the beginning. The typhoid symptoms become intermingled with those of periodical fever, or the symptoms of simple remittent fever, as already, stated, may first appear, followed by divided conditions and symptoms. I have seen, when simple remittent or intermittent fever was protracted, certain symptoms denoting the typhoid state appear, namely, low delirium sordes, subsultus tendinum, etc., but I do not consider these sufficient to denote the union of typhoid and malarial fever. These symptoms and conditions may occur in all fevers, and in various other diseases. In Typho-Malarial Fever such symptoms occur earlier and are more marked. Those connected with the abdominal lesions of typhoid fever, namely, diarrhoea, tympanites, and iliac tenderness, will be found much earlier than would be the case in genuine typhoid fever. They may frequently occur during the second week of Typho-Malarial Fever. Still this form of fever has a formative stage longer than simple malarial fever. The duration is apt to be longer, and the gravity of the disease greater, depending on which element predominates. If in, or bordering more nearly upon the true malarial district, the malarial element will be likely to predominate, and the disease will more closely resemble remittent or intermittent fever. As you leave the malarial district, the typhoid element will become more prominent.

Of course, the condition of the person affected, as well as the surroundings and climatic influences, will affect the course of the disease. I have had in my experience, three cases of Typho-Malarial Fever, which occurred simultaneously in the same house, the patients being members of the same family, yet the disease ran very different courses in the different cases. In one, due to the neurasthenic condition and consequent lack of resistance to the disease, the typhoid element soon became prominent, and during the third and fourth weeks, this case, was to all appearances, genuine typhoid fever, and being treated as such,

the patient made a good recovery at the end of the sixth week. Another ran a typical Typho-Malarial course, neither element being especially prominent, and the patient recovered in three weeks; while the third case responded promptly to anti-malarial treatment, and made a good recovery in a week or ten days. These three cases presented the same symptoms in the beginning. The patients were sick at the same time and were given identically the same treatment for the first few days, with the exception of such variations as were demanded by their individual requirements.

I recall another instance of two sisters, treated by me only a few months since. They roomed together; had the same surroundings and similar habits, and were not unlike in temperament. They were taken sick only three days apart and presented, in the beginning, practically the same symptoms, being those of periodical fever in the remittent form. In a few days the typhoid element became manifest in both cases and regardless of persistent anti-periodical treatment, they both developed true Typho-Malarial Fever. In one case the malarial element was stronger, and the patient made a good recovery in three weeks. In the other, the typhoid element predominated, and the patient was sick for six weeks. In the latter case the patient's nervous system had been sorely taxed just before the development of the disease, and the nervous symptoms were prominent throughout its course, which fact accounted for the predominance of the typhoid element in her case, and her consequent slow recovery. This was not a case of genuine typhoid fever, as some would perhaps be inclined to think, nor was the other case one of true malarial fever. I do not claim that the malarial fever with which the cases cited began, was changed into typhoid. There was no transformation of one disease into the other, but a combination of the two at the outset, the phenomena of the one type of fever or the other predominating in the different cases. These and other cases which might be cited, show that the symptoms and phenomena of typhoid fever and of periodical or malarial fever are often intermingled in varying proportions, the symptoms of the one or the other predominating as the conditions are more or less favorable for such development. As a result, different cases beginning with almost the same symptoms, will approximate on the one hand more nearly malarial fever, and on the other more nearly typhoid.

Notwithstanding these variations, however, Typho-Malarial Fever is a separate and distinct disease. It is to be distinguished from malarial fever by the characteristic incidents of typhoid fever, especially the abdominal symptoms, the earlier occurrence of ataxic phenomena, epistaxis, etc. It is to be distinguished from unmixed typhoid fever by the characteristics of periodical fever, such as remissions, gastric symptoms, jaundice, etc. In Typho-Malarial Fever we do not have the peculiar tide-like course of fever so characteristic of genuine typhoid. I have never seen rose colored spots in Typho-Malarial Fever. Enlargement of the spleen is noted in both diseases, and it is almost a constant clinical feature.

It may be a source of some remark that I have made no reference to blood examination as a means of diagnosis. I do not underestimate its value. In the hands of those who have devoted much time and study to that particular class of work, it is a very valuable aid, and one which should be kept in mind and used whenever practicable.

I shall not undertake to go into detail as to the treatment of Typho-Malarial Fever. The first step should be to eliminate the malarial or periodical element, by free use of anti-periodical remedies, chief among which, are the various preparations of cinchona. I prefer the sulphate of quinine, given in capsules or solution internally. Pills or compressed tablets are not so soluble, and consequently not so efficient. Ten to forty grains a day will be required—sometimes more. I have seen thirty grains a day fail, and afterwards fifty or sixty produce the desired effect. If the condition of the stomach interferes with the internal administration of quinine, I use the bi-sulphate hypodermically, or use it by enema, occasionally by inunction. Prohibit solid food, regulate secretions and excretions, and correct any existing disorder about the system. If this treatment does not control the fever in a few days the typhoid element exists and must be looked after. Quinine thus administered will control a purely remittent or intermittent fever. If it does not control the form of fever you are treating then you have gained a point in diagnosis, and have done no harm by its administration at that stage, even though you should have to deal with a genuine case of typhoid fever If the malarial element appears to be more prominent, a few days later, I again use quinine freely, and have seen it control the fever perfectly when it had failed in the beginning, when the typhoid element first predominated. If this anti-malarial treatment has not the desired effect the case must be treated very much as a genuine case of typhoid from that time

on. Combat auto-intoxication, a condition which is evidently present in both diseases by the use of suitable intestinal medication, such as salol and similar preparations. Turpentine and the mineral acids will also be found servicable when indicated.

The hygienic and medicinal remedies which should be employed in unmixed typhoid fever, are well understood and their discussion does not come within the purview of this paper. My principal treatment in such cases, is diet and hydrotherapy.

The Therapy of Iron and Its Compounds.*

By H. K. Aiken, M. D., Laurens, S. C.

The human mind retains a few isolated facts but most of what we know stays with us only by the association of ideas. When, therefore the medical eye sees or the medi-ear hears the word Iron there results some such association of ideas as this "Iron tonics Iron-anaemia" just as the bare mention of syphilis brings back the mental echo "Mercury" or malaria "Quinine."

While it is true that Iron for some pathological conditions approaches at times as near the nature of a specific as any remedial agent that we posess at other times its continued administration leads only to disappointment and our faith in therapeutics as an exact science is sorely shaken.

It is for the purpose then of gaining a better idea of *How*, *When* and under what limitations Iron acts best, that has lead me to glean the recognized authorities upon materia Medica and to present as far as I may be able to do so a condensed synopsis of the best thought upon this subject for our mutual profit.

Being a normal constitutent of the human body this element must be regarded first as a food and only secondarily as a medicine. It is a food because it supplies to the organism nutriment that in health is isolated and continously appropriated by several organs. Where does the Iron of the blood come from?

A normal infant fed only from the breast of its healthy mother does not become anaemic. The Iron necessary for its rapidly growing body must of course be derived solely from the mothers milk, and yet the proportion of Iron in human milk is so small as to constitute the merest trace upon chemical analysis. Or take the man of average health and vitality living upon an ordinary mixed diet and he does not become anaemic.

Facts like these justify the conclusion that Iron is ordinarily supplied to the human economy in sufficient quantity along with our food and that the average mixed diet upon which most of us live furnishes enough Iron in natural combination to answer the needs of our system. And thus it is that anaemia does not always result from a deficient amount of Iron being received by the system but may be and frequently is due to a failure upon the part of the absorbents to properly assimulate from the food the amount of Iron needed by the body. For this reason anaemias occassionally persist in spite of all the Iron that can be given. Other cases can be cured without Iron.

The treatment of anaemia in these cases resolves itself into so improving the digetion and assimilation that the blood-forming organs may be able to receive from an ordinary wholesome diet the needed constitutet *Iron*. In such cases it is harmful rather than beneficial to persist in forcing ferruginous preparations, upon a crippled stomach.

How Iron Acts.

It has been well said that the human stomach is not a test tube and we cannot prove that what takes place in the laboratory will occur again under similar conditions in the wonderful organic chemistry of cell activity. We cannot write a formula of

Anaemia X Iron=Health or

Diphtheria X Anti-toxin=Recovery

that will *always* hold good *but* certain elementary laws of chemical union are as true in the stomach as in the test-tube. Iron in the presence of water will rust—it is oxidized, changed into an oxide of Iron. If sulphur be present in the stomach (as the result of fermentation) Iron would unite with the S. to make sulphates or sulphites. Iron also combines with albumen forming the Albuminate of Iron and probably always enters the blood current in this form

Several competent investigators have announced as the result of their labors the opinion that in-organic compounds of Iron cannot enter the blood as such, but must first be changed into some of the organic forms in which it occurs in animal and vegetable food. It is unreasonable to prescribe a large dose of some Iron salt leave no directions about diet and expect this drug to at once enter in and conquer the anaemia.

While this dictum of experimental physiologists—that inorganic Iron cannot be absorbed is not to be successfully refuted by chemical equations, the crucial test of

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experience settles beyond all question that inorganic preparations of iron do, in the majority of cases work benefit. We can only explain this conflict of theory with practice by supposing that the individual cell posesses the power of changing inorganic into organic form and then appropriating the iron to its needs. The lesson to be learned from these facts is that by administering food-iron instead of inorganic iron we relieve the digestive and assimulative organs of the labor of transforming the one into the other and therefore the search for and the increasing use of organic preparations of iron seems wise.

We known beyond conjecture that after entering the blood current the effect of iron is to increase the number of red corpuscles and enhance the oxygen carrying power of the hæmoglobin already present—what further chemical changes it induces we do not know. We know its effect is beneficial but as is the case with so many remedies we cannot give a clear, definite and unassailable explanation of how these effects are brought about.

How Eliminated.

Iron is excreted by the intestinal canal, in the bile and in the urine. The blackening of the fæces after taking iron is the result of its combination with the tannin contained in them. When iron is ordered it is not amiss to inform the patient in advance of the effect it will have upon the color of the evacuations so as to spare them a very natural uneasiness on this account. To the average layman, the color of his alvine discharges is the great index to health. However small the dose of the old preparations of iron this blackening of the stools is in a proportionate degree produced so that no guide to the amount being absorbed or rejected is furnished by it. We give iron in excess—the excess acts as a tonic. In that old but ever delightful work of Fothergill —his Handbook of Treatment there is a valuable article entitled "When *Not* To Give Iron."

The following are some of the conditions mentioned by him as contraindicating its employment:

1. In Plethora.
2. During Acute Inflammations.
3. In Fever.
4. Intestinal Irritation.
5. When there exists a tendency to Congestion as of the Lungs or Brain.
6. Biliousness.

Allow me to comment on some of these in briefest detail.

Iron and Potash will cure functional Menorrhagia—unless the profuse menstruation is natures selected method of depleting an over full vascular system. For a woman whose cheeks are rosy (but not hand painted!) arterys full and nerve tension high, with menstruation too free avoid iron. It would only intensify the existant condition of too much blood.

Much the same course of reasoning would interdict the giving of iron during fevers. By increasing the oxygen carrying power of the blood it would tend to increase combustion which is already abnormally active as shown by the rise of temperature. A partial exception exists here in certain specific disease or blood poisons. Here the iron must be combined with the antidote for the specific poison. Thus we give quinine and iron for chronic malaria or iron and iodine (as the iodide of iron) in syphilitic cachexia. Nearly all iron compounds are irritants to the gastro-intestinal mucous membrane so that with a red, glazed fiery tongue we do well to withold iron even though the patient be anaemic. The use of the mineral acids or such alkalies as bismuth the phosphate and sulphate of soda the simple bitters or such stomachic tonics as nux vomica, gentian, or cinchona should precede the iron. Given after the intestinal canal is partially or completely restored to healthy action—iron will do its best work. The reverse of this condition, that is one of intestinal torpor as evidenced by a pale, flabby coated tongue from which we infer that the digestive track is coated throughout with dead epithelium and vitiated mucus and is in no condition for absorption to take place. must first be corrected by saline aperients and gentle laxatives before iron will manifest its full potency. The system must be prepared for the administration of iron. So important is it to have the conditions for absorption as favorable as possible that no harm is done during a course of iron to stop the remedy for one or two days at frequent intervals and give an eliminant especially if it exhibits a tendency to constipate. Should iron be given before or after meals? This is not material so long as you secure its intimate admixture with and dilution by the food. Porter (who follows Bunge) says: "All the salts of iron seem to be most efficatious if first acted upon by the gastric juice. When tolerated, the tr. of the chloride is one of the best of the older preparations of iron. Given alone it is acid, astringent unpalatable and injurious to the teeth. But it may be combined in several ways so as to remove its objectionable features and increase its activity. The mixture of iron and ammonium acelate of the dispensatory commonly known as Bashams mixture is an excellent form in which to give iron. This prepa-

ration is pleasing alike to the eye and the palate, and while a chemical decomposition occurs in making it this seems rather to increase its power. A small quantity of ammon. chloride is formed and this combination saline and chalybeate does not tax the stomach. It is an unstable compound and should be freshly made as wanted. The reverse is true of the tincture. The dispensatory advises that it be kept a year before dispensing, and Squibb does not send out any that is not over six months old. Another way in which I have combined the mur. Tinc. is the following:

℞ Tr. fem. chloride rri
Ac. phos. dil. aa., ℥X
Glycerine, ℥vss mix.

Each ℥ represents 10 m. of the tr. In this mixture some of ferric chloride is changed into the Phosphate or Hypophosphite, much of its styptic taste is lost and a rather pleasant acid drink results—more acceptable to most palates than a syrup would be. The phosphorus likewise aids in reconstruction.

In concentrated solutions or by too long continued use iron preparations exhaust the peptic glands by over-stimulation and the benefit previously obtained may be lost unless the stomach is given an occassional rest. There is one condition says Fothergill where iron is absolutely forbidden and and that is the condition popularly known as biliousness. As long as there is a foul tongue, a bad taste in the mouth and fullness of the liver with consequent disturbances of the alimentary canal iron is to be forbidden—it is not only of no service it positively does harm. Defective oxidation is at the root of this state, yet iron does not agree with such patients. Iron undoubdtly increases the oxidizing process but somehow or other in biliary disorders it does not suit. As long as any of these symptoms remain iron must be withheld. The patient may be anaemic and iron seems to be urgently indicated but it will do no good until the liver is unloaded by salines then some strychnia and nitro-mur acid. When the liver is once more working efficiantly iron may be prescribed. By attention to these points much may be done for bilious patients who are anaemic and much discredit avoided." When iron causes a sense of heat and oppression at the epigastrium small doses of Magnes. Sulphate will relieve it.

Many attemps have and are being made to obtain iron in organic combination so that when given it may be ready to enter the blood current without first having to be transformed from inorganic to iron as it exists in foods by the organs of assimulation. The mallates, peptonates and albuminates of iron so persistently and industriously advertised in the pages of medical journals represent these efforts. A German chemist has a plan of making this food-iron that is at least ingenious. By means of certain reagents he seperates and collects the haemoglobin from healthy blood say that of an ox for example. This is prepared for administration and when ingested the blood iron of the ox becomes the blood iron of man. This is briefly the theory. How well it succeeds I am unable from actual experience to say. Several prominent New York practitioners have spoken in high terms of its value and easy assimilation. I feel that my treatment of this subject has been incomplete. In extenuation let me say that my chief object has been to perhaps lead others here far more competent to give us the advantage of their opinions and practical experience. Hoping that I have not tired you by this very imperfect resume I commend the subject of iron and its compound to you as a study full of interest and practical benefit.

Case of Pneumonia With Pyemia as Complication.

By James A. Knight, M. D. Eatonton, Ga.

I desire to report for your valuable journal a case of pneumonia which in its peculiar physical expressions and complication is such rare occurrence as to make it of general interest to the practising physician.

During the past winter I was called to attend a boy about ten years of age, who I found presenting symptoms of pneumonia, somewhat obscured by an entire absence of cough and expectoration. My patient was of a very delicate organization and of a decided anaemic cachexia. I found his puise running as high as 140 beats per minute, skin harsh and dry, temperature 103 to 104 deg. respiration 36. There was but little complaint of pain. Upon a careful examination I discovered the lower lobe of the left lung completely hepatized.

My diagnosis of pneumonia was confirmed by the usual physical signs and agreed to by a consulting physician. At once I placed my patient on the carbonate of creosote, with strychnine, and upon stimulants as indicated. On this treatment he appeared to do fairly well until the sixth day when he was suddenly seized with a violent rigor followed by a temperature of 107 deg. and diaphoresis. As there had been an entire absence of expectoration and no cough I at once concluded that my patient was in great danger from pyemia and at once

abandoned the treatment with creosote and strychnia and commenced the use of a most-active anti-purulent. In my long experience with this class of remedies I have found none more certain in meeting this condition than ecthol, which I administered to the little sufferer, in one drachm doses every three hours until I was satisfied that his system was fully under its influence. In less than forty-eight hours there was a marked change for the better in his condition; pulse diminished in frequency, the volumn increased and temperature rapidly falling. I persisted in the use of ecthol with the happiest result. On the twelfth day my patient was dismissed and made a rapid and most satisfactory recovery.

The rationale of this treatment must be evident to the intelligent physician. Certainly I have never witnessed the therapeutic effect of any remedy with more entire satisfaction than was evidenced by ecthol from the moment the patient was fully under the anti-purulent effect of this potential agent.

In pyemia the micro-organisms will be found in the blood vessels and in the various organs of the body, reaching these from the metastatic foci of the supperation wherever it may exist. From the location of the focus of the infection it was impossible for me to employ asepsis, since there was no defined abscess; hence the absorption of pus was from an infiltration of the lung tissue. Based upon this reasoning I determined to employ the most active constitutional remedy and selected ecthol, as from my experience with it, in the treatment of diseases of a toxic character, it is without a rival in the list of anti-purulents known to me.

Creosote in Pneumonia.

By J. A. Gracey, M.D., Waxahachie, Texas.

In 1899 I wrote a short article in your Journal, on the use of Creosote in Pneumonia, at that time my use of it extended over about one year's time. The results obtained then, which were so favorable, continue, and a larger experience with it makes me a stronger advocate of the Creosote treatment than before. During the spring of 1901 we had a large number of cases of pneumonia, following on an epidemic of measles, chiefly among children. The results obtained by this treatment were uniformly successful. During January of present year an epidemic of pneumonia prevailed, and those physicians who put their patients promptly on the creosote were very successful in carrying them to a favorable termination. In three years and more in which I have used it in acute lung troubles, I have only seen two cases to end fatally. One was a case of young man with a double hypostatic pneumonia following a five weeks typhoid, the other, a rheumatic patient, ran a course of one week and died suddenly from heart complication and we all understand how unfavorable the results in cases of this kind.

Outside of these two cases I have not known of a fatal ending in any case, where the creosote has been used. In fact, as I stated before, in previous paper, the results are so uniformly favorable, that we often think we have been mistaken in our diagnosis, and perhaps we were, and that they were not all a Pneumonia, but some other acute affection. However, that may be, I believe we are fully warranted in placing our cases of acute lung troubles on the creosote. The treatment is certainly rational, and, to those who have used it, it is the most satisfactory treatment in vogue. When one is called to a case with history of initial chill, pain, cough, increased pulse, temperature and respiration, and often in the stage of "rusty sputum" we are warranted in strongly suspecting a pneumonia. These are the kind of cases that formerly were the dread of all conscientious physicians and justly so, for a large number of these kind of case progressed to a fatal issue. Under the Creosote we have seen such cases, time and again, go on to a rapid amelioration of symptoms, the crisis hasten, and our patient recover, without the sequelae, so often meet with in the older methods of treatment.

Of the Creosote preparations, my preference has been, the Carbonate of Creosote, in doses of from 8 to 20 drops every 2 or 3 hours. This combined with other remedies to meet arising symptoms, as a strychnine for the heart. The Terpine Hydrate with Heroin, for cough, and pain, and the Ammon Mur. as a stimulant to mucus membrane I have found the most useful combination.

Since I first heard Dr. I. L. Van Zandt's of Fort Worth Texas in his paper, read in 1898, I have been an earnest advocate of the treatment. Since then the literature favorable to the subject has largely increased, until now quite a respectable number of practitioners are using it, and with unqualified success. My experience although small is added with the hope that others may be induced to use it and so save the lives of many who would otherwise I believe go to a fatal ending.

Salpingitis.*

By Walter Lenehan, M.D., Nashville, Tenn.

INTRODUCTION.

Of all diseases to which the human frame is heir, these are, to my mind, the most distressing. Distressing, because they involve organs sacred to the individual, and of the greatest importance to the community. There is no sadder picture than a young and beautiful girl, who leaves her home with the ruddy glow of youth in her face, to become, in a few months, a pale, wan sufferer. Grieving by day and by night because the one greatest object of her life—to become a mother—cannot be realized. Why? Follow me, and I shall try to show you.

Salpingitis, with its complications and sequelæ, is one of the most widespread of all diseases. Fortunate, indeed, is the woman who reaches the menopause, and escapes its baneful influences. Then, too, it usually attacks a woman at about a time when she is the most useful, and soon makes a mental and physical wreck of her. Therefore, let me implore you not to look too lightly on these troubles, and, as is too often done, say the woman has female troubles, and prescribe some simgle wash, suppository, or perhaps a tonic, and think no more about the matter.

CLASSIFICATION.

First, let us take up our study by classifying these diseases. The most satisfactory classification which I have seen is that given by Orthmann, which is as follows:

1. Catarrhal salpingitis with its varies; simple, diffuse, intestitial, hemorrhagic, follicular.
2. Purulent salpingitis, which may be septic, gonorrheal, or tubercular.
3. Haemato-salpinx.
4. Hydro-salpinx.
5. Pyo-salpinx (or purulent cystitis salpingitis).

Pozzi makes his classification according to whether or not there is cyst formation; thus:

1. Non-cystitic salpingitis.
   - (a. Acute catarrhal.
   - (b. Acute purulent.
   - (c. Chronic parenchymatous.
     - (Hypertrophic (or vegetative (variety.
     - (Atrophic or (sclerous variety.
2. Cystic salpingitis.
   - (a. Hydro-salpinx, or serous.
   - (b. Haemato-salpinx, or haematic.
   - (c. Pyo-salpinx, or purulent.

Other classifications, according to variety, etc., given by some authors, are confusing, hence we shall not include them.

ETIOLOGY.

The chief cause of salpingitis is, without doubt, inflammation of the uterus. Specific and other inflammations are spread by continuity of mucous surface. This is held to be the only method of infection by Schroder. Championniere advances the idea that infection might be spread by means of the lymphatics, and this view must not be ignored. If we bear in mind the anatomy of the lymphatic system of the pelvis; and also the fact that adhesions are very often found, binding the fundus of the uterus to the tubes and ovaries, this theory cannot but help appeal to us. Moreover, I quote from Pozzi, "Poiriere has shown us that these adhesions are almost entirely composed of lymphatics which connect the subendothelial uterine plexus with the lymphatics of the appendages. These adhesions are without doubt the result of the action of a previously existing endometritis upon the deep lymphatic plexus of which the subendothelial plexus is merely a continuation. Inflammation from the body of the uterus may be carried along this channel to the tubes and ovaries, especially if some new patholical influence comes to accelerate the process."

Thus, we see how easy it is for an inflammation to spread to the tubes and ovaries, and it has been my observation, and most of the authorities clearly state it. that, if a catarrhal endometritis exist for some time, the tubes are always affected. The symptoms of endomentritis may be so severe and those of salpingitis so mild that we will overlook the latter; or, on the other hand, our attention may be directed solely to the tubes, and we will not recognize the existent endometritis.

The frequency of endometritis quite accounts for that of salpingitis. The statement is only emphasized by the fact that a temperary endometritis is so frequently followed by a permanent lesion of the tubes. Winckel found out of 575 female cadavers, 182 with lesions of the appenda-

*Read before the Tennessee State Medical Society.

ges. Arthus Lewers found 17 cases of hydro, pyro, or haemato-salpinx, in 100 autopsies performed at the London Hospital. Galabin, from 1883-86, found in 302 autopsies performed in Guy's Hospital, 12 cases, or 4 per cent. Of this, Lawson Tait remarked "Patients in this hospital come from a class more well-to-do than those of the London Hospital, and gonorrhoeal and puerperal infection are consequently less frequent." Martin found in his clinic, from September 15, 1886, to December 31, 1894, that out of 20,605 gynaecological affections, there were 1,363 cases of adnexal troubles; and out of 2,078 tabulated cases of tubal and ovarian diseases, 279 were due to gonorrhoear.

Gonorrhoea plays a most important part in the causation of tubal diseases. Many years ago, Postello compared the extremity of the tube to the epididimus, but it remained for Bernutz to state the analogy between the tubo-ovaritis of gonerrhoeal origin in the female and epididimusorchitis in the male. Westermark was, however, the first to find the gonococcus in the pus from a gonorrhoeal salpingitis. Since then most conclusive observations have been made, especially by Schmidt, Carstens, Zweifel, Witte, Wertheim, Schauta and Prochownick. Martin reports the cases in which he found the gonococcus, together with those cases observed by Wertheim, Charrier, Prochownick and Schauta to be 76. "In France, Hartman and Morax found the gonococcus 13 times in 33 cases of suppurative salpingitis, and Jayle 4 times out of 30 cases."

Reymond states that the germ is found most frequently upon the surface of the mucosa. It lies in a purulent layer composed of a great number of leucocytes and desquamated epithelial cells. Wertheim has found the germ in the mucosa and muscularis.

It is probable, that in young married women, old chronic cases of gonorrhoea (gleet) which are considered harmless, is the chiefest cause of trouble. How many young women have you seen to marry, and soon to have a slight endometritis with a leucorrhoea established? We, in a careless way, without the proper investigation, attribute the trouble to too frequent intercourse, perhaps; and doom her to a life of suffering and to sterility, because of our ignorance.

One of the most frequent causes of tubal diseases, is puerperal infection. Martin, in the 20,605 gynaecological cases observed by him in his clinic, found 374 cases from this cause. Infection follows labor, or more frequently abortions under septic conditions. If we have a post-abortum endometritis, with retention of blood-clots and fragments of membranes, we should always fear tubal complications. If this material become gangrenous and remain in the uterus for several days, we are sure to have a metro-salpingitis. The streptococcus is the infecting agent. It is usually found free in the pus between the cells. It may be found in the mucosa and thrombosed vessels. The staphylococcus may rarely be found, but is invariably associated with the streptococcus.

If the woman have gonorrhoea at the time of her labor, we will have a mixed infection, puerpero-gonorrhoeal. But Pozzi believes that in these cases the post-partum elevation of temperature is due to the streptococcus, "whose development has been favored by the gonococcus."

Gynaecologic and obstetric examinations and operations are another fruitful source of infection. The uterine sound is a most dangerous instrument. A dirty finger; and even intra-uterine washings may carry infecting germs. It must be borne in mind that a thorough sterilization of the hands, vulva, vagina, and instruments is not a sufficient guarantee against infection, for the cervix normally contains numbers of germs which may, under favorable circumstances, become pathogenic.

We sometimes find a tubercular inflammation of the tubes. This is usually found co-existent with tubercular inflammations of other parts of the genital tract; but tubercular salpingitis has often been found as an isolated lesion. Conheim and Verneuil state that the point of entrance of the bacillus tuberculosis is very often the genital tract. It is also possible that the germs are introduced into the circulation through the respiratory and digestive tracts, and settle on the inflamed appendages as the point of least resistance. Mr. Lawson Tait has shown us that malformations or congenital atrophy of the tubes would also cause a predisposition of the affected tubes to tubercular invasion. Freund has laid especial stress on this point. I think it extremely doubtful if infection is ever carried in by means of the semen. This could, perhaps, be possible where there was some tubercular infection of the genital tract of the male, but such cases must be relatively rare.

Occasionally the tubes may be infected through the intestinal tract. This infection comes from an old intestinal lesion (enteritis or typhoid ulceration). The infection might be spread by adhesions of the gut to the appendages; or by lymphatic channels, which Clado has pointed out, connect the ovary with the coecal appendix. The infecting agent here is the bacil-

lus coli communis, and perhaps the bacillus typhosus. We must not, in this connection, forget the possibilty of a mixed infection; and Reymond states that, in the presence of the bacillus coli communis, the micro-organisms previously existent in the tubes, seem to acquire increased virulence.

The pneumonococcus has been found in cases of salpingitis, but in no case was it found that the patient had had pneumonia. Frommel and Witte found the pneumonococcus in salpingitis of puerperal origin, while Zweifel and Gironde found it in gonorrhoeal salpingitis. It is interesting to note that the cases in which pneumococci have been found were all unilateral.

Rare cases have been reported in which the causative factor seemed to be the eruptive fevers, especially scarlet fever and smallpox.

Salpingitis may be produced by flexion, myoma, or carcinoma of the uterus, and perhaps by stenosis of the os, with retention of mucous in the cavity. Garrigues mentions also exposure to cold, violent exercise immediately before menstruation, or to coition as being causative agents.

Syphilitic salpingitis will not bear investigation, and the case in which the actinomyces was the infecting medium is a pathological curiosity.

PATHOLOGY.

First, let us take up acute catarrhal salpingitis. In this condition, we find the tube swollen to about the size of the little finger, or possibly larger. This is due both to an infiltration of the wall of the tube, and of the sub-serous tissue. The swelling is cylindrical in shape, and the tube is found twisted and bent because its lower border is bound to broad ligament. The fimbrae are usually found folded up, yet they do not completely obliterate the opening. They may be patulous and turgescent. Pozzi remarks: "This permeability of the fimbriated extremity I consider to be pathognomic of inflammations, which are simply catarrhal, or in other words superficial and curable, not calling for extirpation of the organ." The tubes are often bound to the ovaries adjacent structures by thin, filamentous adhesions.

The tube is of a pinkish color on its external surface, and tends to deepen in color near the fimbriated extremity. On section, we find that the normal folds of mucous membrane are hypertrophied, of a pinkish or silvery gray color, and sometimes covered with mucous.

Microscopically, we find that the mucous membrane especially shows signs of disease. The folds are covered with lateral, thick, club shaped, and newly formed vegetations, many of which anastamose at the internal extremity. These vegetations are composed of a vasculo-cellular frame work which is infiltrated with round cells, and is in places covered by a layer of columnar, ciliated epithelium. Most frequently, only a hyperplasia of the substance of the fibrous and muscular coats is found.

Acute purulent, non-cystic salpingitis: Freund claims that there are normally two forms of Fallopian tubes, the one almost straight, and of normal calibre; the other twisted, and with diminished calibre in places, the remains of an infantile condition. He claims that in the one, tubal troubles develop rapidly and tend to a spontaneous cure, while in the other, because of its constricted condition, suppurative infiltration of the walls of the tube is produced, and this is sufficient to close the uterine orifice. Thus we have a pyo-salpinx produced from an acute purulent salpingitis.

In acute purulent salpingitis we find externally all the evidences of an intense inflammation. The tube is swollen, twisted, and knotty. The fimbrae adhere to one another and close the ostium abdominale. The ostium uterinum is permeable. If we open the tube, we find the cavity filled with creamy pus. The mucous membrane presents a downy appearance, and is of a grayish color.

Pozzi describes the microscopic appearance so beautifully that I shall give his words: "Under the microscope, a transverse section shows very thick reduplications covered with anastomosing vegetations, forming a system of primary and secondary folds, enclosing irregular cavities that look like glands. This thickening is due to the infiltration of migratory cells in the connective tissue. The ciliated cells are destroyed, and the epithelial cells are changed in shape, becoming cubical or flat, and preserving their normal shape only in the sinuses, whose pouch like endings are lined with a basement membrane of columnar cells which still further increases their resemblance to glands. The whole thickness of the wall is also infiltrated with these round migratory cells, and the blood vessels are dilated." This condition may be spontaneously cured by the tube becoming indurated; that is by the formation of embryonic connective tissue. This, however, is the exception, and the case either becomes chronic or a pyosalpinx is produced.

Chronic parenchymatous salpingitis: In this condition, the vegetations which were at first isolated coalesce and form an embryonic tissue, which lines the walls of the tube, and extends into the lumen in the form of papillomata, thus diminishing the

calibre of the tube. The pus disappears, and these vegetations become organized. We usually find a sclerotic ovary or a perioovaritis associated with this form. We find the tube thickened, hard and corded. It is bound down by strong adhesions. I should also add that, as a rule, this is a bilateral disease, whereas, we may find that an acute lesion is unilateral.

The lesions are not limited to the mucous membrane, but the whole wall of the tube is involved; especially the parenchyma. The ostium abdominale is always obliterated, but the uterine orifice is usually open. The tube often become impermeable, however, from constrictions. This is the form of salpingitis which some authors call interstitial.

In chronc parenchymatous salpingitis, we recognize two anatomical varieties—hypertrophic and atrophic. In the hypertrophic variety, we find the tubes somewhat enlarged, and of a fleshy consistency. It is of a purplish or dark red color. On section we find either a hypertrophy of the muscular tissue or a thick coat of newly formed connective tissue. The lumen is filled with a pulpy substance which is composed of mucous membrane, the epithelium of which is greatly changed. This substance is of a brilliant silvery color. The blood vessels may be much dilated, and there may be found a number of haemorrhagic spots on the walls of the tubes. Sawinoff has demonstrated that there exists a perineuritis which is caused by compression of the nerve filaments.

In the atrophic variety we find the tube contracted. The cellular infiltration of the walls of the tube has been reabsorbed, and replaced by cicatricial tissue. Pozzi remarks "that this is probably a more advanced state of the hypertrophic pacysalpingitis which has gone on to cirrhosis of the Fallopian tubes. "The fibrous tissue takes the place of the muscularis, causing the tube to contract, and, in advance cases, to become a hard and impermeable cord. The epithelial lining of the tube is destroyed, The follicular salpingitis described by Orthmann and others is distinguished by a number of cystic cavities in the walls of the tube, but, as this condition is common to all inflammations of the tubes, it should not receive a special classification.

Pyo-salpinx: Here we find both extremities of the tube closed, though we may occasionaily find the uterine opening permeable. The tube is dilated about 2-3 of its length. Rarely is the whole tube dilated. Usually the first half inch or inch next the uterus remains of normal size. Here the tube may be twisted on itself. The whole tube is hardened. We often find the ovary adherent to the ampulla; and we frequently find adhesions binding the tube and ovary down to the cul-de-sac. This frequently causes displacements of the uterus.

The tube varies in size, somtimes attaining the dimensions of a foetal head. It is frequently curved upon itself. Externally, it presents a yellowish-white appearance. The walls vary in thickness. On section, we find the internal surface velvety, and the cavity filled with a yellowish, creamy pus, which may be fetid.

Microscopically, we find the internal surface covered with the same branching vegetations, but much thicker than those of acute catarrhal salpingitis, because of the greater infiltration of round cells. But a single layer of columnar epithelial cells covers them, and this is also found in the bottom of the spaces which lie between the villosities. The deep layers of the mucosa contain may fusiform cells, but the more superficial layers are greatly infiltrated with round cells. The blood and lymphatic channels are engorged.

Pyo-salpinx is sometimes found associated with fibroma or carcinoma of the uterus.

If the pyo-salpinx be tubercular, we may find the characteristic tubercular granulations upon the neighboring peritoneum, but more often, the diagnosis will have to be made by the microscope, which will show the tubercle, with its zone of nucleated cells, surrounding the giant cells, and the bacillus tuberculosis.

Hydrosalpinx or tubal dropsy: Bland Sutton believes that this is often an advanced form of pyo-salpinx. He bases his belief on the following points:

1. Hydrosalpinx is not found in acute cases.

2. In many chronic cases hydrosalpinx is found on one side of the uterus, and a progressive pyo-salpinx on the other.

3. The ampulla of the tube will sometimes be dilated into a hydrosalpinx, and the isthmus contains pus.

4. The fluid contained in a hydrosalpinx will sometimes be colorless, but the recesses of the tube contain caseous material and cholesterine.

5. The dilated tube in hyrdosalpinx may, as in pyo-salpinx, communicate with an enlarged ovarian follicle to form a tubo-ovarion cyst.

He further describes the mode of development of a hydrosalpinx thus.

"In cases of salpingitis sufficiently severe to occlude the ostium, the tube is, after the subsidence of the inflammation, in a condition of a blocked ureter; there is no escape for the fluid which is excreted by the glands

in its walls, or for the fluid which passively exudes in to its cavity. It consequently forms a cyst by retention."

The walls of tube are smooth and papyraceous. They are very thin; the mucosa and muscularis are found in an atrophied state. They are of a bluish-white color. The shape of the tube is characteristic; it resembles a legume with the ends somewhat blunt. The ovary occupies the concave border. As a rule, a hydrosalpinx is about the size of a small orange. The tube is closed at the uterine orifice. It is filled with a fluid which has a yellowish or greenish tinge, due to the presence of cholesterine, and may contain blood or a little pus.

Haemato-salpinx: We recognize two varieties of haemato-salpinx.

1. This form is more frequently found. It follows a catarrhal inflammation. We find the tube only moderately dilated. The wall is infiltrated and is only moderately thickened, The ostium abdominale is closed, but the uterine orifice is usually open. The tube is filled with fluid blood. As a rule, however, the trouble is only temporary, and the blood is reabsorbed.

2. Here, we may find an extreme dilatation of the tube. The sac resembles that of a pyo-salpinx. The tube wall is infiltrated, and is greatly thickened. It is bound down by strong adhesions. Microscopically, we find a milder grade of inflammation than we find in pyo-salpinx. The mucosa contains an abundance of fusiform cells, which in some of the folds seem to rise perpendicularly from the deeper layer. The epithelial coating of the tops of these folds is usually wanting. We may find in intervals between them a dense network of capillary filled with blood. These can be traced almost to the surface of the mucous membrane. We may find small parenchymatous hæmorrhages in places.

The tube is filled with a stratified blood-clot, the centre of which is filled with broken down blood products; or sometimes a syrupy chocolate colored blood. We often find a clear liquid material which is an admixture of blood and pus.

Of this variety, Pozzi remarks: "For the formation of the sac, I think we must presuppose a tubal pregnancy arrested in its development by the death of the fœtus, which is reabsorbed, or a previous pyo-salpinx which has obliterated the uterine opening and thickened the walls at the same time that they became dilated."

Of hæmato-salpinx, Bland Sutton says: "In all the cases that have occurred in my own practice in which dilated Fallopin tubes contained blood clot, a careful examination of the parts has led to the detection of an embryo, an apoplectic ovum, or chronic villi."

I may add before leaving the pathology of this disease, that haemato-salpinx is often found associated with fibromata, and is due to a haemorrhagic metro-salpingitis.

SYMPTOMS.

The symptoms of salpingitis vary with the extent, virulence, acuteness and mechanical conditions of the disease. The milder catarrhal inflammations may have very few symptoms. On the other hand, a dangerous puerperal inflammation may present no symptoms other than slight recurrent fever, and emaciation.

The most constant symptom is pain. This even may not amount to real pain. There may be a dull aching or burning sensation. This may be aggravated by local pressure, exertion, defecation, or vaginal exploration. Sometimes the pain is of a colicy character. It is usually felt in one or both iliac fossae, and in the sacral region. It radiates upward to the epigastrium, and downward to the thighs. It is not infrequently accompanied by gastralgia and vomiting. The congestion of the menstrual period most often aggravates the pain, producing dysmenorrhœa. If only one side is affected, the pain may sometimes be felt in the opposite side. On account of the pain, dysperunia is a very prominent symptom.

Menorrhagia and metrorrhagia are fairly constant symptoms. Amenorrhœa may be a symptom, and should always excite a suspicion of tuberculosis.

Leucorrhœa is a very common symptom. We may have various mechanical symptoms, such as painful urination and defecation, pelvic neuralgia, difficulty and pain on walking and standing, and various reflex symptoms,

The general health of the patient usually suffers. She loses flesh; often has fever; becomes fretful and nervous; and suffers from loss of flesh and energy.

We may find all of the uterine syndromata associated. Sterility is the rule.

Physical signs:—By bimanual examination. we detect, in the acute cases, the tube in a hardened, twisted, thickened condition. It is tender to the touch. It may be fixed or movable. The ovary may be found enlarged and tender. In cases which have existed for some time, we find a boggy, resistent, pear-shaped mass, hanging from the side of the uretus, and filling the vault of the vagina. This mass may be found bound down to the cul-de-sac. It may be either bilateral or unilateral. If unilateral, we may find the uterus pushed over to the opposite side; if bilateral, we will find that

the mass either occupies a position behind the uterus, lying in the cul-de-sac, and pushed the uterus forward, or it is anterior to the uterus, and pushes it backward. The uterus is usually somewhat enlarged, and may be fixed. Pressure upward on the uterus usually causes pain, as well as does pressure over the mass.

On percussion, we obtain an area of dull ness over the mass.

DIFFERENTIAL DIAGNOSIS.

Time forbids that I enter into the differential points of diagnosis, hence I shall have to content myself with mentioning the diseases for which this might be mistaken. The principle affections which we have to eliminate are:

Tumors of the uterus, tubes, broad ligaments, intestines, sacrum and ilium.
Appendicitis.
Intestinal adhesions.
Fecal accumulation.
Extra-uterine pregnancy.
Uterine displacement.
Parametritis.
Hæmatoma.

COURSE, PROGNOSIS, TERMINATION.

The outlook in these cases is anything but bright. In the acute forms, we may often check the advance of the disease, but the tendency is to become chronic, and it must be of rare occurrence that the tube is not more or less permanently injured. The woman may at any time have relapses, resulting from peri-salpingitis, and this is often brought about by any over-exertion. If the inflammation has closed tubes, sterility necessarily results.

The cystic varieties are incurable except by surgical measures. They make chronic invalids of their possessors. The patient is likely to have attacks of peri-salpingitis from the least over-exertion. Hence she has constant relapses. The tube is liable at any time to rupture from over-distention, which will, in the case of a pus tube, result disastrously. Then, too, we may have fistulae established between the pus sac and rectum, vagina, bladder, bowel, or even ureter. Sterility is the rule.

TREATMENT.

The treatment of the acute forms must be largely symptomatic. The patient should have absolute rest in bed, a light diet, an ice bag or small blisters to the lower zone of the abdomen, hot vaginal douches, possibly local blood-letting, salines, and if required to relieve the pain, a hypnotic. The uterus, if it be the source of infection, should be cleansed, to cut off further infection. Electricity is of doubtful efficiency. If the case become threatening, and we fear that the accompanying local peritonitis may become generalized, we should resort to radical measures.

In the chronic forms, especially the purulent and hæmatic, we cannot hope to effect a cure by any means other than operative. Much has been done lately in the way of conservatism, but if we have large collections of pus, and the tube is much damaged, we should resort to radical operation. We sometimes do a salpingectomy for the relief of pain in the chronic paranchymatous variety, but this should always be made the last resort.

Pozzi very tersely sums tee conditions demanding the extirpation of the appendage as follows:

1. "Ovaritis and salpingitis where there is every reason to suspect the presence of pus.

2. Painful sclero-cystic ovaritis.

3. Chronic paranchymatous salpingitis and cystic (serous or haemic) salpingitis, where, in spite of the lesions being apparently slight, menorrhagia, dysmenorrhœa, or nervous reflex phenomena call for operation."

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A Plea for Typho Malarial Fever.*

By J. D. Hopper, M.D., Physician and Surgeon, Andrew Chapel, Tenn.

Having heard several discussions in our societies for several years on Malarial and Typho-mal. Fevers, it has been the stimulus what I shall say on this subject. Flint and our older writers describe a disease as Typho-Malarial, differing somewhat from Malarial or Typhoid, as the name would imply, a blending of the two diseases, and that such diseases prevailed long be-

*Read before the Tennessee State Medical Society.

fore the War on the Potomac and was called Chicahominy fever or Camp fever, and that it is also prevalent as Autumal fever and is much more fatal than remittent fever. Now what I shall have to say is not from a microscopical or a chemical standpoint; but from what I think almost every country practitioner in the South sees.

We have to deal with Typho-malarial, a combining of the two diseases in such, with the symptoms ranging between Malarial and Typhoid so well described by our older writers that we are justified in calling it Typho-Malarial.

I know the Chemical and Microscopical Laboratorist tells us to have malarial there must be plasmodic malarial in the blood; and to have typhoid, the typhoid bacillus and that there can be no hybridization of the two germs, therefore we either have typhoid or malarial fever. Our experts name our diseases for us according to the kinds of germs found and the location thereof. Now, after such naming, typho-malarial excluded, we are confronted with a disease, which we do not know how to name. Once again our experts come to our rescue and tell us it is fever and only fever which is very inadequate to my mind as regards the patient's condition. Had not our experts told us there was no such disease as typho-malarial we would be contented to call it that name.

Now, after all, is it not possible that our experts could be mistaken about this matter? As typhoid fever seems to be more fatal in non-malarial districts than malarial ones, could we not then reason that Plasmodium Malarial has a tendency to counteract the Typhoid Bacillus or its toxine, lessening its severity bringing about that condition which we call Typho-malarial. Hare says those who have investigated and studied the Plasmodium Malarial in cases of this so-called Typho-malarial fever, and some of them have had numbers of cases, are unanimous in asserting that they have never seen a case in which quinine failed to produce good results. Notwithstanding all this evidence, I know I have had cases of this kind in which quinine had no effect so far as I could see. I believe there are some in this meeting who have had the same experience. Now whether or not these cases be malarial or typhoid they are those which are Typho-malarial or X fever and until the X fever is more fully explained, I think Typho-malarial the better name for it.

This paper is written and the questions asked for the purpose of stimulating an interest on these lines and if it be Typho-malarial we may know it, or if it be fever, just fever, we may know it.

Injuries of the Knee Joint with Report of Cases.

By J. B. Johnston, Ph. G., M.D.
St. George, S. C.

All authorities are agreed that the injuries of the joints are attended with danger, and are not infrequently followed by fatal results. Particularly is this the case when the larger joints are the seat of the injury, a greater area of articular surface being involved and the resulting inflammation more intense and destructive: such cases present a very discouraging prognosis and demand prompt and active remedial measures, to arrest their progress and bring them under control.

The unusually acute sensitiveness of the synovial membrane and its extreme readiness to take on inflammatory action, account in great part for the gravity of these cases and emphasize the necessity for and prompt judicious treatment.

What has been said of joints in a general way is more particular applicable to the knee joint, it having a greater area of articular surface, and the cases which I shall report to emphasize the necessity of prompt an active treatment of injuries to the joints will all be those of the knee.

Case 1. Patient white man, saw mill hand 22 years of age, weight 126 pounds, pale swallow complexion, family history good, no syphilitic, tubercula or rheumatic diathesis. Patient had had an attack of malarial fever about two months before the receipt of his injury. I was called to see him on the 16 of September 1901, and obtained the following history of his case previous to my visit, from him. On the 6 of September last while chopping out a wedge with a hatchet, he struck his left knee with the corner of the hatchet, making a small wound which bled freely at first but soon desisted.

He thought nothing of the injury at the time and during the remainder of the day performed his work with no inconvenience whatever. But upon the following day he was unable to attend to his work, the knee was very much swollen and gave him intense pain upon the least movement of the joint. He at once began to practice upon himself, using all the remedies known to himself, or recommended by the good women of the community, such as applications of Japanese

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oil, British oil, King of Pain, followed by poultices of clay and vinegar, flax seed meal, mush, etc. Taking at the same time internally laudanum or morphine, in sufficient quantities to control the pain.

On the night of the 11, a considerable quantity of thin yellow fluid exuded from the wound giving almost instant relief. And I have no doubt but that this contained an admixture of synovil fluid.

On the morning of the 12, he returned to his work at the mill, but in a few hours after resuming his work he was struck upon his wounded knee by a log-carriage, this, gave him a great deal of pain, so much so, that he was compelled to return home and resume treatment upon his wounded knee; resorting to the same applications he had used in the first instance, and from which he perhaps expected the same results.

He was disappointed, however, and the pain became so severe that at times it required three-fourths of a grain of morphine sulphate to control it. Under these circumstances therefore I was sent for.

Upon my first visit I found patient in bed, lying on his back with wounded knee slightly elevated, he was suffering a great deal of pain, and was very nervous, having been without morphine for several hours; his temperature was 101 deg. pulse 98 and respiration 28 per minute. I could not examine knee carefully until I had administered one-third grain of morphine sulphate hyperdermically to quiet him.

Upon examination I found a small wound on the inner side of the lower border patellæ, the knee was very much swollen, swelling extending up to hip-joint, very little swelling below the knee joint. The knee was very tender, giving severe pain upon the least pressure; the tissues in the neighborhood of the wound were soft and fluctuating showing that pus was beneath. Under Kelene spray, I opened up the wound down to the head of the tibia, and removed about four ounces of thick yellow pus, which seemed to be floating in about half that quantity of thin yellow wattery fluid.

I examined the bone at the seat of the injury and it was found to be in a healthy condition. The cavity was washed out with peroxide of hydrogen, followed by a solution of bichloride of mercury 1-10,000, which in turn was followed by plain sterile water. The cavity was packed with iodoform gauze, covered with absorbent cotton, and the limb fully extended and put in a comfortable position. I left several powders of sulphate of codeine, one half grain to each powder, to be taken if needed Upon my visit next day patient informed me that he had gotten along nicely the previous night, until about 12 o'clock, when pain became so severe that he was compelled to take a powder, repeating every two hours until three were taken. Upon examination, I found that a considerable quantity of pus had been discharged through the opening. The cavity was washed out and treated as on the day before. Temperature one degree higher, pulse and respiration more rapid. I became satisfied that pus was forming above the knee joint, but upon the most careful examination could not discover the least fluctuation.

The patient's condition remained very much the same for the next three or four days. On the 22, patients temperature went up to 104 degrees, and I gave an antipyretic to reduce it. On the following morning I found his temperature 102 deg. and upon examination of the limb I discovered fluctuation above the knee joint on the outside of the thigh, about the junction of middle and lower third. I informed patient that I would call again in the afternoon.

When I returned in the afternoon, I carried my friend, Dr. P. L. Horn, with me. We decided to make an incision into the abscess about two inches long, commencing on the outer side of the thigh at the junction of the middle and lower third, and extending downward. After making incision as described, we succeeded in emptying about eight ounces of pus containing a considerable quantity of dark venous blood; the cavity after being empty was explored and found to extend up as high as juncture of upper and middle third of the thigh, and as deep as the tissue immediately around the bone. The cavity was washed out with per ox-ide of hydrogen, and thoroughly curetted; after which it was again irrigated with creolin solution of strength of one-half of one per cent. Upon my visit next day, patient said that he was feeling much better and had rested well on previous night after taking a powder which contained one-half grain of codeine sulphate. Temperature was 101 deg. pulse 110 and respiration 30 per minute.

The cavities continued to discharge a considerablequantity of pus. They were curetted and washed out daily with per oxide of hydrogen, followed by the creolin solution, and packed with iodoform gauze. The patient had no appetite, and I put him upon concentrated food, such as peptonoids, panopeptones, beef juice, etc., also upon three-fourths grain doses of calcium sulphide, giving three doses a day; he was later put upon Gude's Peptomangan, bowels were kept open with cascara sagrada, and morphine or codeine sulphate given to control the pain.

patient seemed to get along very nicely for several days after the abscess was opened, except that there was no tendency to healing of abscess cavities.

On the 28 of the month I found patients temperature 102½ deg. which was higher than it had been at any time since the abscess had been opened. Coincidently with the rise in temperature the thigh began to take on additional inflammation and in a few days was larger than before abscess had been opened. I became satisfied that an abscess was forming on the inner side of the thigh; and on the 6, of October I discovered fluctuations just above the junction of the middle and lower third, following the course of femoral artery.

With my friend Dr. P. L. Horn who had continued to see the case with me from time to time, I proceeded to open the abscess. I commenced the incision about two inches above the junction of the middle and lower third of the thigh and extended about an inch below it. About twelve ounces of pus were discharged. The cavity was found to extend up about the junction of the middle and upper third of the thigh, and down to knee joint. The cavity was washed out and treated as the other cavities had been.

On the following day, I decided to connect the two cavities above the knee, and this was accomplished by passing a pair of dressing forceps through the tissues just above the femur, and with them drawing a piece of iodoform gauze through from one cavity to the other. The patients condition grew worse daily, fever remaining up, ranging from 100 to 103 deg., chilly sensations daily, and occasionally a rigor, pulse 110 to 140 and very weak, respiration 32 to 40 per minute. The thigh became œdematous and boggy, showing infiltration of the tissues, and on the 21, I made several incisions at different points in the infiltrated area.

On the first of November his condition was truly critical; the whole thigh practically discharging pus from abscess cavity with two large abscesses forming below the knee, one to the inner side of the leg and a little posteriorly, and the other on the other side and from the patient's general condition, I did not think that he could survive but a few days longer, and was sustained in this view by two other physicians; we being confident that septic infection had set in to such a degree that he could not live.

The patient was still alive on the 5th, and I decided to open abscesses below the knee, one being opened on this date, and the other on the following day, both of them discharging freely; these cavities were treated as the others had been.

The patient remained in an extremely serious condition for the next twenty days, temperature ranged from 101 to 102½ degrees, and pulse being so rapid and weak at times that it was impossible to count it. On the 27th day of the month I was informed that the patient's appetite was returning. He would call for various articles of food, and did not fail to eat them when brought to him. I watched the case very closely for the next few days, and to my surprise, found that he was actually improving, the temperature gradually dropped to normal, the pulse increased in force, and decreased in rapidity, the wall of the abscess cavities began to granulate freely, and I stopped packing with gauze, but continued to wash them out daily with creolin solution. The patient gained strength slowly but surely and by the 12th of December there was very little pus being discharged from any of the cavities. Some of them being almost filled up.

After this date the patient improved very rapidly and on the 25th of the month sat up for a little while, the first time in over three months. I continued to see the case, from time to time after this date until the 16th of January, 1902, when I dismissed him.

He has been in my office frequently since the first of February, there is still some enlargement of the knee and almost complete ankylosis of knee joint. At present he has charge of the log camp of the saw mill.

The points of interest in this case are—

1. Recovery of patient.
2. Length of time of high temperature, extending from September 16, to about November 28th.
3. Size and number of abscess cavities.
4. Should amputation have been performed at any time.

Case 2. This was also a white man 26 years of age, carpenter by trade, in perfect health up to the time of the injury. I first saw him on the 26th day of September last. He informed me that two days previous he had struck his right knee with the corner of a foot adz, there was little bleeding, but upon the least movement of the joint a little water, as he termed it, would flow out of the wound. The patient's temperature was 99½ degrees, pulse 80 per minute. After washing off the knee well with antiseptic solutions I proceeded to examine it and found a small wound about 3-4 of an inch wide, situated just at the lower external border of the patella. The knee was somewhat swollen and very painful upon movement. I passed a small probe into the wound and upon its withdrawal a small quantity of synovial fluid flowed out, showing that a small opening had been made into

the joint. I decided that the best thing to do would be to enlarge the wound into the joint, and treat it antiseptically. I opened up the wound in the joint to about one-half inch in size, at the same time enlarging the external opening.

About an ounce and a half of a thin bloody fluid was discharged. I then attached a dull hollow curette to a fountain syringe and allowed one gallon solution bichloride 1-1000 to flow into the joint. This was followed by one gallon of plain sterile water. The wound was then dusted with idoform, the leg extended and fixed, and the knee bound up rather tighly. I left several powders containing $\frac{1}{4}$ grain of morphine sulphate each and instructed the patient to use them if necessary and to leave the leg exactly as I had left it.

The patient lived twelve miles from me, and I did not see him again until the 27th, at which time he informed me that he had been getting along very nicely, only having to take two of the powders I had left, one each night. I examined the knee and found it swollen as much, if not more, than upon my first visit. There was considerable soreness about the joint. His temperature was about the same as on the 25th and knee was left just as I found it. I instructed patient to keep the knee perfectly quiet, and if there was any change to let me know at once.

I next saw him on 1st October; he was getting along exceedingly well, very little pain upon pressure, temperature normal. I instructed patient to remain in bed at least five days longer, and use crutches 10 or 15 days.

I next saw him in my office on the 22nd of October; the knee was still enlarged with considerable stiffness of the joint, causing him to limp in walking. I next saw him on the 23rd of December walking along the street without the least limping or inconvenience. I asked him to call at my office before leaving town, as I wished to examine the joint. Upon examination I found it normal in size and appearance with perfect mobility. The interest in the second case still further emphasizes the virtue in the prompt and active treatment of these cases.

There is no doubt that in this case the knee joint had been invaded and a small quantity of synovial fluid discharged before I saw him, and that synovitis to some extent at least existed, and it is not unreasonable to assume that had treatment been deferred as in the first case grave results might have occurred.

Case 3. This was a child about three years old, and of sound healthy parentage. I was first called to see it September 23rd, 1901, and found it suffering from severe inflammation of the tissues in the vicinity of the knee joint accompanied by well marked symptoms of synovitis. Although the case was evidently of traumatic origin, the parents were ignorant as to the cause of the injury and the child was too young to give any information as to its occurence. There were no external marks or evidences of violence or injury to guide me in forming an opinion.

Upon my first visit the child had a temperature of 102$\frac{1}{2}$ degrees, was very fretful and nervous. I found the knee very much swollen and tender upon the slightest pressure. I at once commenced the application of lead water and opium to the joint with the internal administration of papine to control pain. September 24th, the condition of the patient was about the same, except that there was a great deal more congestion of the tissues around the joint I decided to relieve this by local blood-letting and took away about four ounces of blood by means of free incisions to left side of the knee and followed by warm applications. September 26th I was accompanied by my friend, Dr. P. L. Horn; we decided to make another free incision on the right side of the knee; this we did and about six ounces of blood were drawn.

The patient made a complete recovery without further treatment, the mobility of the joint being perfect, not the slightest ankylosis remaining.

Anaesthesia.*

By E. W. Carpenter, Greenville, S. C.

Gentlemen:—In presenting this subject I will not apologize for its being a time-honored and worn one, for I hope to suggest to you some new thoughts and practical results which have been extremely interesting to me and which are engrossing the attention of the professional Anaesthetist.

I purpose to show that chloroform is the safer anaesthetic when compared with ether; that its immediate effect is more desirable and less alarming, and that its remote effects are less deadly, for it is in the after effects that a great many victims are claimed by ether and thereby it escapes the approbrium which has been accredited to chloroform.

The arguments in its favor are:

It is universally conceded that death during chloroform anaesthesia is due to "Vaso-Motor paralysis" i. e. a sudden dilatation of the circulatory apparatus from paralysis

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or the vaso-motor nerves. It is known that the dilated and flaccid veins will hold all the blood in a human organism. The patient bleeds to death within himself, into his own veins.

Seven-tenths of all deaths from chloroform occur in the primary stage of anaesthesia (just here let me say there are but two stages, the volitional and unconscious).

Many deaths have occurred even before the patients had taken sufficient chloroform to benumb their consciousness, often not more than a few drops had been applied to the mask. Now chloroform is a poison that paralyses the vaso-motor nerves, and as in the case of other poisons such as curare, strychnine, etc., the quantity or dose bears direct relation to the effect. Now we do not find seven out of ten dying from less than a minimum dose of these drugs while three out of ten die from a lethal dose, in other words no one dies from a minimum dose of any poison, just so in chloroform the deaths have not occurred from it as a *poison*, but there is *another factor* present by which death is caused. Nor will idiosyncrasy explain why seven-tenths of all deaths are caused when chloroform is given.

Let us take another step in the observation. Dr. J. A. Bodine says he has knowledge of a case where not a drop of chloroform was used. The mask was being held over the patient's face to accustom him to it and teach him to breathe regularly because he was quite nervous, after his taking a few deep inspirations he died before a single drop of chloroform had been added. What killed him? Was it idiosyncrasy, was he poisoned or was he *frightened* to death? Had one drop been used the anaesthetist would have said "Death from idiosyncrasy."

Again, a man died on a bed pan in Polyclinic Hospital while enema tube was being inserted for preliminary rectal irrigation, he was very nervous and afraid of anaesthesia and thinking this was the beginning he simply died—what from? From fright. Had one drop of chloroform been applied on a mask the consensus of opinion would have been death from chloroform. In this case autopsy revealed all organs healthy. There are other similar instances on record.

Another instance of death by fright is the negro, at Ann Harbor, who was blindfolded by medical students, placed on dissecting table and being told he was to be dissected alive, icicles were drawn over his belly and he promptly absconded into the world of spirits.

Let us review our premise, viz: That death in first stage of chloroform narcosis is caused by vaso-motor paralysis. Death occurs daily from fright and death from fright is due to vaso-motor paralysis.

Does it not convince you, then, that suggestion is the explanation for the seven-tenths of all deaths occurring during chloroform narcosis, and seven-tenths of the whole number is said to occur in the so-called primary stage and in some cases before a drop of chlorofarm was used?

We admit that chloroform is a poison and kills by vaso motor paralysis, but what we cannot understand is why only three-tenths of all deaths occur while the patient is saturated with the poison, and seven-tenths before they have lost volition or during so-called first stage. Should not the rule for poisons in general have a rational application?

Now when we eliminate the seven out of ten deaths from chloroform we have a far better record than ether statistics show. Can we do this? Yes, if we can do away with the element of suggestion.

A practical illustration of the difference in chloroform anaesthesia when fright is not a factor is during labor, there the woman fears the pain, which she has been assured is not fatal. Just consider now how few deaths are reported as occurring during labor, here the woman welcomes the chloroform as a God-sent messenger of comfort, and even though you push it to a profound limit, you always feel secure. Otherwise would so many physicians unhesitatingly give it while alone?

I am now perfectly satisfied that this mental factor is a prominent one in the cause of two-thirds of deaths during chloroform anaestheia.

It is a matter of statistics that more deaths occur from railroad accidents during the day than from those in the night, because we have fright and trauma in the day and at night when one is asleep no time for alarm occurs and fright is eliminated.

Let us consider the patient's mental condition with an operation before him—his prominent thought is "will I live or die?" His nerves are screwed to highest tention, he is placed on table and chloroform slapped over his face. He tries to obey the doctor by breathing deeply, fear being always dominant in his mind and as stupefaction proceeds he feels his *volition* slipping away, he realizes that he is becoming helpless. (The first sustaining thought of all of us is our ability to exercise efforts of self-control and at this moment this ability is fast slipping away). He is passing into a voluntary death and he tries to answer the question, Will it be temporary or eternal? He makes an effort to knock away the mask and the presiding medicus calls out in sten-

torian tones, "Two or three of you strong men hold him down," and as he realizes his helplessness, his already high tention nerve apparatus snaps and he is dead. Have I overdrawn the picture?

In closing, let me outline Dr. J. A. Bodine's method which he has successfully used in over two hundred cases.

Gentleness and a soothing personal calmative influence. If your personal equasion is not effective for its calamative influence on the agitated give morphine which makes them phlematic. Morphine is not given as a heart stimulant or to lessen quantity of chloroform, though it does both, but it is given to allay the excitement. Never allow any one to touch or restrain the patient while passing from a state of volition to unconsciousness, for this is the danger line, where this method is effective.

After patient is on the table, let your personal equanimity apply to the subject, be calm, appear confident, cool and collected, encourage him by suggesting pleasant topics, treat the matter in hand with dignity and decision, do not appear *nonchalant*.

Sit down by patient and calmly talk with him, and tell him he is perfectly safe, just as much so as if he was in his own bed, but don't exaggerate this as it may impress him with your nervousness. Let it appear that you believe in your ability to carry through the proceedure. Just now is a critical period for a patient can see into the very depths of your soul, and if you are not sure of your ground, the patient will recognize your condition.

Now comes the essential point, something must be provided for the patient to do, some means that will cause him to think he is assisting in making himself safe and the better he does it the safer he will be, make him realize that whatever you provide for him to do is a part of the anaesthesia and of vital importance. The object of this is to make him think of something definite, other than the question of his dying. If he concentrates his mind on any one subject he cannot at the same time focus it on another, he cannot think seriously of two things at once, so if his mind is wholly occupied with whatever you tell him to do, then he cannot think of his danger.

Now tell him and show him how to lock his hands together over his chest resting elbows on table. Then say and say it so as to carry conviction, "The important thing for you to do, Mr. Patient, is to keep your hands tightly locked together and the tighter you lock them the easier and safer you will be. Don't move hand or foot and above all things don't fail to squeeze your hands and breathe deeply and you are safe as in your bed at night." Then start chloroform slowly, keeping up all the time repeating "Remember your hands." "Grip them tight." "You are safe and all right." "Remember your hands," etc. In that way you don't allow his mind to revert to the danger he is in, you keep it concentrated on his hands. If it is done properly he will go to sleep with hands tightly locked and he will not move a foot, no not even a muscle.

Eureka! here we have no excitable stage, no fear, no fright; not even a single acceleration of a heart-beat and having accomplished this elimination of fright and imagination you have eliminated two-thirds of deaths formally caused by chloroform.

The hand gripping and your personal equasion which every one can apply are the essential features.

I claim no originality for this, and am indebted to Dr. J. A. Bodine, of New York, for the suggestions which I have seen practiced.

Ethol is an American preparation made from a mixture of the fluid extract of Thuja and Echinacea augustifolia. The latter is a plant belonging to the natural order Compositæ, which grows in North America. The fresh root of this plant is in high favor with the Indians as an antidote against the bites of serpents. Dr. Stinson found that this plant promotes the flow of saliva, is a mild and inoffensive antiseptic, and, above all, an aphrodisiac. It is empleyed in malaria, in typhoid and in diseases of the stomach as well as locally in the form of an aqueous solution of the fluid extract as an aphrodisiac. In addition, it may be given internally in the form of a fluid extract or a tincture. Ecthol is said to be the most powerful antagonist of suppuration. According to Meyer, this substance has a powerful effect in toxanmias. Parker, Webster, Snyder, and Russell have shown that it is of great service in infectious diseases, in septic wounds and in the bites of serpents, as well as in the chronic catarrhs. —*N. Y. Med. Jour., March 15th, 1902.*

Glass Vaccine Points-- A New and Original Idea.

One of the most interesting developments in vaccine points is undoubtedly that recently placed upon the market by the H. K. Mulford Co., of a flint glass point, similar in size and shape to that of the ivory point. Every propagator of vaccine, as well as user, has recognized the limitations of the ivory or bone point, inasmuch as it

could not be properly sterilized either by dry heating which chars it, or by the use of antiseptic solution or powder, which would be absorbed in the bone and destroy the vaccine virus itself, and for this reason experiments have been carried on covering a period of years, to secure a proper substitute in glass, which from the start has been recognized as the ideal, if it could be properly produced. Mulford & Co., have succeeded in doing this, they have under their management a large and completely equipped glass plant on their vaccine farms at Glenolden, for the manufacture of such glass-ware as they use in connection with antitoxin and vaccine. It is the only glass plant in the world that employs exclusively women.

The glass point permits of thorough scanification, it is easily and thoroughly stirilized, and is supplied by the H. K. Mulford Co., either in form or dry points, or what is superior to these dry points, the glycerinized form of vaccine, this is the same vaccine employed in the glycerinized tubes and is thoroughly tested and free from pathogenic organisms.

The glass point is first sterilized, then tipped with glycerinized vaccine, which has been carefully tested bacteriologically and physiologically to prove its activity and purity, after that it is encased in sterile glass capsule, which is then hermetically sealed, thus permitting handling of the point without any possible contamination, and it is in fact, the ideal form of vaccine, representing the purest and most active.

There is no advanced charge made for the glass glycerinized points and we endorse them as being the most advanced step forward in the marketing of a pure and aseptic vaccine.

Clinical Observations, by Dr. Louis LeRoy, Nashville, Tenn., Professor of Pothology of the Vanderbilt University, and State Bacteriologist. Dr. LeRoy is a wellknown authority, and what he says on this subject will be, we think, of exceptional interest to our reders. We quote as follow:

"At the more severe stage of whooping cough small doses of terp-heroin will be found to relieve the frequency and intensity of the spasms without deranging the digestion, or nauseation of the patient to the extent that ipecac will. In tuberculosis in which there is a troublesome, irritating cough, it will be found of benefit, relieving the additional source of irritation which the severe coughing produces. In this way it becomes desirable as a synergist to the action of creosote, the dose of which seems capable of being increased to a greater extent than when uncombined. In attacks of the pulmonary type of grippe not only will the cough be found to be modified, but the headache frequently so troblesome will be greatly modified.

"The antispasmodic action of terpheroin was well manifested in one case which came under the writer's care in which the patient was afflicted with a very troublesome attack of hiccoughs. A two drachm dose was administered at once, followed by three one drachm doses at intervals of half an hour, when slight nausea was produced, and the hiccoughs entirely stopped and did not return. In acute tonsilitis it will relieve much of the pain and discomfort while the usual local treatment is being instituted.

"As an analgetic a pleasing combination will be found by combining drach doses with the desired dose of any of the coal tar antipyretics."

The Parasitic Nature of Eczema.

Dr. Alfred Eddowes (Medical Times and Hos. Gaz.) refers to the experiments of Bockhardt, Bender, and Gerlach, proving that the toxins produced by the growth of staphylococci in broth cultures are capable of exciting eczema of the human skin, apart from the presence of the staphylococci themselves. Bockhart has succeeded in producing a papillary eczema at the point of inocculation. When the culture filtrate (toxin) is merely rubbed on the skin, the mouths of some of the follicles become inflamed, showing that the follicles are the most vulnerable points in the skin surface. Eczema produced by toxins presents the same appearance as those seen in acute eczema.

Bockhart comes to the conclusion that eczema is an infective inflammation of the epidermis and that the exciters of the eczema are staphylococci. The healthy follicle in a previously disposed individual, it would seem, can contain living but inactive staphylococci; through external or internal influence these become inactive and multiply as soon as the staphylo-toxine passes from the follicles to the deeper epidermis; papules and follicles are commonest in the immediate neighborhood of the follicle. These contain clear serum, free from staphylococci at first, but later on these pass along the lymph spaces in the edematous epidermis, and secondly, they invade neighboring parts. In case the eczema becomes chronic, other tissue changes result which are not directly due to the staphylococci.

Charlotte Medical Journal.

EDWARD C. REGISTER, M. D., Editor.

No. 36 South Tryon Street, - - - -

- - - - - - - - - - Charlotte, N. C.

SUBSCRIPTION. $2.50 PER YEAR.

INTRASPINAL COCAINIZATION.

The interest and study during the past year of this method of anesthesia has been quite earnest; and the literature upon the various phases of the matter was extensive, covering the various observations by those who had opportunities to use this method in minor and major surgical operations. The merits of this form of anesthesia has been studied with an effort to establish the possibiiity of its value in a large number of indicated conditions, over general anesthesia, which is not without its dangers, besides entire absence of intellect which is caused by the narcosis of general anesthesia.

If there is full and complete anesthesia of the part intended for the operation with full consciousness and natural condition of intellect in the patient, there will be a great gain in such an anesthetic in operative procedure over the old methods of general anesthesia.

If at the same time the degree of safety is equal to if not greater than that of general anesthesia, with absence of untoward results, then the use of cocain anesthesia will be hailed with pleasure; and it will come into daily use in all cases in which it is indicated.

The credit of this method has been given to Corning, Bier, and Truffeir with claim of priority for each, with the strongest proof in favor of Corning of New York.

The greatest stride of progress has been achieved since the introduction of anesthesia by Morton, in surgical art and science due to the inestimable aid of anesthesia. With an improved mode and form of anesthetic, what additional progress may be achieved for the suffering human individual, remains for the annals of the future to show, since it occurs frequently that cases must be denied operation through some contra-indication to general anesthesia which is found to exist in the individual, thus tieing the surgeons hands from rendering aid when he might otherwise save a human life.

Kallionzis[1] urges surgeons to abandon hesitation and reserve, and cordially adopt Spinal Cocainization according to Truffiers' Technique.

It will be observant in the few cases which have been reported of untoward results in the use of cocain anesthesia all occurred in very unfavorable cases for operation under any form of anesthetic.

Morton[2] believes that we have a safe and reliable analgesic in the subaracnoid injection of cocain for performance of any surgical operation on any portion of the body, regardless of age, sex or disease, and one which has no contraindications. All reports give evidence of less disturbance under the usee of cocain spinal anesthesia than in general anesthesia.

At one time it was considered that cocain anesthesia was only applicable to operations below the diaphragm; but operations in all parts of the body has been successfully done.

Redmond Payne[3] reports two mastoid operations, one stacke, one frontal sinus, one ossiculectomy and one enucleation of the eye. He directs the injection to be made with the needle pointed upward.

R. Norma[4] speaks of the simplicity and promptness of cocain analgesia which commends it in alcoholic subjects.

Illing[5] strongly recommends the preparation of tropa-cocaine as the most desirable form of the cocaine preperations in all operations except those on the abdomen. He says tropa-cocainis less than half as toxic as cocain hydrochlorate and recovery from the effect is more rapid. This preparation of cocain is also well spoken of by Myer of New York (Medical News, April 13, 1901). Schwarz[6] reports all manner of minor and major surgical operations done by tropacocain with more satisfaction than by any other form of this drug.

With the reports of successful surgical work done under the use of this form of anesthetic, the promise is very favorable to its early use generally by the profession; and it is hoped that the future use of this method of anesthesia will continue to be satisfactory giving better results as the use and technique becomes more thoroughly understood.

1. Revue de Chirrurgie, (Paris) Oct. 1901.

2. American Medicine, Aug. 3, 1901.

2. Laryngoscope, (St. Louis) Aug. 1901.

4. Cirugia Contemporanea (Mexico) Sept. 15, 1901.

5. Journal American Medical Association, March 22, 1902.

6. Muenchener Med. Wochenschrift, Jan. 21, 1902.

CARCINOMA ITS ETIOLOGY AND FREQUENCY;

One of the pathological conditions which is of a most serious nature with which the human individual may be afflicted on account of the loathsome condition which it assumes as well as the intense suffering with which it tortures the victim, is that monster carcinoma or cancer.

It has been supposed, at least the statistics appear for some time past to point to a continuous increase in the number of cases of this malady during the past half century, and more especially during the past ten years. Senn[1] of Chicago claims that this is more apparent than real. It is true the statistics show more exactly the number of cases now than in earlier years.

As to the nature and etiology of carcinoma much study and labor has been expended during the past five years and especially during the past year, by pathologists, histologists and clinicians.

A number of papers were read at the 52nd, meeting of the American Medical Association in a symposium on the "Surgical Aspect of Carcinoma," two of these papers deserve special consideration by the profession who are interested in this matter, one by Nicholas Senn [2] of Chicago the others by Roswell Park [3] of Buffalo, N. Y.

The analysis of the cause or origin entering into the process of carcinoma that has been involved by workmen in this field in the past, to receive the consideration of investigators to-day is that of dietetics, embryologic, irritation and paractitic.

Many of the most earnest and careful investigators at the present time are becoming confirmed in their opinion favorable to the paracitic theory in the cause of cancer.

The paracitic or infectious theory is the one which satisfies most of the pathologists and clinicians of the present, from the investigations and observations during the past two years in which the study has been most enthusiastically pursued. Senn[4] says; "The local, regional and systemic dissemination of carcinoma is strongly suggestive of the existence of some virus or microbe as the essential cause of the origin and spread of carcinoma." Schuler has written a most interesting monograph and describes well his observations and discoveries of a paracite.

Similarly we have an example in tuberculosis of an infectious or paracitic disease which also causes a degenerated condition with vital exhaustion in the individual.

Heredity is recognized in a high percentage, as a predisposing cause in the development of cancer. Here the condition in the cell is such that the proper or necessary force starts it on its course of degenerate growth; whether it be of sewage origin, as held by Masson,[5] irritation, dietetic or paracitic. The hereditary force has been fully recognized and observed by all surgeons.

Parke[6] has demonstrated and insists regarding the infectious condition in the origin of cancer. Much light and aid has been gained by the labor of Virchow, Cohnheim and Waldyer.

Many workers have been able to follow the course mapped out by these men and thus become more thoroughly convinced of the salient points which they brought out. From the basis thus established progress is more acurate and far reaching.

To-day the paracite theory is the one which satisfies the pathologist and clinician beyond any other.

Whether the nature and form of the paractice or microbe and the undoubted proof of its presence will be recognized or that it has been already discovered remains to be established. The continued labor in this line is entirely commendable and should receive the aid and support of the entire profession.

1. Nicholas Senn, M. D., Present Status of the Carcinoma Question, Journal American Medical Association, Sept. 28, 1901. p. 804.

2. Senn, Loc. cit.

3. Roswell Park, M. D., The Nature of the Cancerous Process, Journal American Medical Association, Sept. 4, 1901, p. 671.

4. Senn, Loc. Cit.

5. Mason, British Medical Journal, Jan. 18, 1902—Charlotte Medical Journal, March 1902

6. Parke, Loc. Cit.

MEMORIAL HOSPITAL OF RICHMOND.

The new Memorial Hospital of Richmond, Va., which is now under course of construction could not, in our opinion, chosen a better or more appropriate place for its erection. Situated on the spot where formerly stood the historic Myer's house, and in the immediate locality which was formerly known as "Doctors Commons," on account of the great number of physicians who had offices there, it undoubtedly possesses much of historic interest. Aside from this it is an ideal location in respect to the magnificent view which it commands. From the upper stories of the hospital may be seen the beautiful Falls of the James, its winding course through the valley, covered in summer with waving grain and verdant pastures, its many islands scattered here and there. The Chickahominy and Shockoe Valley. What a picture! And on the other side in striking contrast to this picturesque scene of peaceful nature, may be observed all the bustle and activity consist-

nt with a live commercial metropolis. Excluding its historic interest, and overlooking its exquisite panoramic scope, it is asily accessible to all the depots and yet ufficiently removed from the noise and moke of the city to make it pleasant. It s indeed an ideal location. The building n every particular will combine convenience and quiet. When completed it will e a model.

A NEW JOURNAL.

In December last there was commenced t Carlisle, Pa., the publication of the Journal of the Association of Military Surgeons f the United States. This is the only ournal of its kind published in the English language. This Journal makes its ppearance quarterly in a handsome and onvenient magazine form, excellently rinted and finely illustrated.

Here are published the papers read at he meeting of the Military Surgeons Association; together with many original rticles and memoirs of Medico-Military onduct of campaigns in all lands. All rticles on medico-military subjects appearing in any other publication throughut the world will be reported; thus formng a medico-military index.

Major James E. Pilcher, U.S.V., of Carlisle, Pa., who is connected with Dickinson College of that place, the Editor, is man of high qualifications and is eminntly fitted for this work.

The February number consists of one undred and forty-two pages, filled with ell prepared papers in this field of medine. The first paper in this number is by ieut. Col. John Van Renssellaer Hoff, U. . A., entitled "Resume of the history of he Medical Department of the United tates Army, from 1775 to the beginning f the Spanish-American War."

The contents are arranged as follows, riginal Memoirs, Reprints and Translaons, Medico-Military Index, Editorial epartment, etc.

This Journal is a most excellant one and eserves the attention of all who are interested in Medico-Military Literature and cience.

LIMBERGER CHEESE AND ITS DANGERS.

In the news notes of one of our large edical weeklies recently occurred a note garding the action on the part of a health fficer of a Southern City to suppress, not nly the sale but as well the manufacture of is odoriferous dainty. There may have en some special reason in that individual se, that the quantity of Limberger heese held for sale by some party or parties were affected in such a manner that it was unfit as a dietary for the human individual. This course may have been entirely pertinent to some special sample of cheese, but to prohibit the manufacture and sale of this article on general principles was undoubtedly not wise. That Limberger cheese may be infected by certain microbes is not sufficient reasons for the radical measures regarding the traffic, because the human stomach has proven to be entirely equal to cope with this paracite which inhabits this and other forms of cheese, as the past experience has shown. However if the sample was especially infected with a paracite known to be dangerous in food then it was wise to prohibit the sale of that stock of cheese known to be thus affected. The importance of having all food stuff examined or inspected by proper well informed experts, who will be able to detect such dangerous conditions in all articles used as food, becomes quite plain.

It is known that all air swam with bacteria and microbes of various kinds; mostly of an innocent variety, but the opportunity for food stuff of all kinds thus exposed for sale, to become infected and possibly by a dangerous paracite, becomes quite apparent.

Such inspectors ought to be provided for in every city, sufficiently distributed to inspect all food stuff exposed for sale, not only to detect any food dangerous as diet, but the presence of such inspectors will serve as an incentive to all individuals having such articles for sale to have them in a hygienic and sanitary conditions.

Some men, to use an aphorism, are "born with a silver spoon in their mouth." Others by dint of hard labor manage to eke out their allotted three score years and ten. Others, from want of ability, absence or originality, lack of energy or pure unadulterated laziness adopt the tried and tested plans of other men for their personal advancement. What is more prevailing? What is more pernicious than this practice of imitation. Men spend days, weeks and months in perfecting some innovation, discovery or invention and no sooner is it placed on the market and its merit tested by a punctilious public than there will be numerous imitations. Hardly can we enter any store and call for an article, and perchance they have not it in stock, than we will be presented with something "just as good." A case that has recently engaged the Courts in Massachusetts was that of M. J. Breitenbach Company the manufacturers of Pepto-Mangan vs. Henry Thaler & Co. The latter copied or imitated the

copper-colored cover and white lettering of the Breitenbach Co. The decision of the Court was in favor of the plantiff. Besides not being allowed to use such a package the defendant is required to pay over to the plantiff all profits that they have derived from the sale of their preparation in these wrappers and all profits which they have deprived the plantiff of by means of the sale of their goods in preference to the plantiff's. Any and all damages to the reputation and standing of the plantiff shall be likewise met by the defendant. The victory is complete but as to the method of procedure relative to the adjustment of damages to the reputation and the profit from the sales that were derived from the goods it will be difficult to adopt any satisfactory means. There is always one consoling thought to the man who has had his goods imitated and that is, that a thing must possess some merit before it will be imitated. We congratulate Messers Breitenbach & Co. on their victory.

BOOK REVIEWS.

A Practical Treatise on Materia Medica and Therapeutics, with Especial Reference to the Clinical Application of Drugs. By John V. Shoemaker, M.D., LL.D., Professor of Materia Medica, Pharmacology, Therapeutics, and clinical Medicine and Clinical Professor of Diseases of the skin in the Medico-Chirurgical College of Philadelphia; Physician to the Medico-Chirurgical Hospital; Member of the American Medical Association, of the Pennsylvania and Minnesota State Medical Societies, the American Academy of Medicine, the British Medical Association; Fellow of the American Academy of Medicine, the British Medical Association; Fellow of the Medical Society of London, etc., etc. Fifth Edition, Thoroughly Revised. Pages viii-1143. Size 9¼x 6¼ inches. Extra Cloth, $5.00 net; Sheep, $5.75 net, delivered. Philadelphia, Pa., F.A. Davis Co., Publishers, 1914-16 Cherry Street.

The fifth edition of Dr. John V. Shoemaker's Therapeutics will need but little introduction to the profession, for the preceding editions have been very favorably received and the need of this latest revision is an evidence of the esteem in which the work is held. We observe that Dr. Shoemaker still retains the alphabetic arrangement rather than grouping the drugs in classes, as is done in standard works on Pharmacology, and a number of other treatises on therapeutics. To be sure, the classification of drugs is outlined in the introduction, and the alphabetic arrangement may possess certain advantages in convenience for the students which is perhaps wanting in the pharmacologic classification. On the other hand, the latter arrangement has many advantages, not the least of which is the fact that while seeking information about a particular drug the student without effort learns something of others, the actions of which are analogous. One of the difficult features in the preparation of a work on this subject is deciding upon which of the newer unofficial remedies are worthy of mention. Many of the synthetic products have passed beyond the experimental stage and their inclusion in a work designed to be a standard text-book becomes a matter of necessity. The point, however, may be well taken that numbers of other synthetic products, and of these the name is legion, have by no means passed into generally accepted use. Dr. Shoemaker has taken a middle ground and while some of those preparations which he mentions may perhaps be open to criticism, he has wisely omitted many others which other authors have included. We are in a transition stage in this matter and it must be left largely to the individual judgment of our authors what they regard as worthy of mention and what to omit. In a work designed mainly for students, the advisability of including the official preparations alone may be well worthy of serious consideration, for the reason that the student's knowledge, at least the ground work of his knowledge, in systematic therapeutics is acquired in his undergraduate days. When he is engaged in the practice of his profession the unofficial preparations are exploited to him continually, while no such gratuitous service is being rendered on behalf of the pharmacopœial preparations. He is, therefore, frequently tempted to employ some new agent, overlooking a better remedy in the official list. But as we said, above, all this is largely a matter of taste and judgement on the writer's part. The chapters in Dr. Shoemaker's work devoted to Electro-Therapeutics, Hydrotherapy, Balneotherapy, Climatotherapy, and Climatology, are of uniform excellence and we would especially mention that part of the work devoted to the discussion of Diet in Disease. A well chosen formulary helps to make the word more valuable to the general practitioner. The index is prepared thoroughly and a "general index" as well as a "clinical index" will assist in the usefulness of the book.

Atlas and Epitome of Operative surgery, By Dr. Otto Zuckerkandl, Privatdocent in the University of Vienna. From the Second revised and Enlarged German Edition. Edited, with additions, by J. Chalmers DaCosta, M. D., Professor of the Principals of Surgery and of clinical Surgery, Jefferson Medical College, Philadelphia, etc. Second Edition Thoroughly Revised and greatly Enlarged. With 40 colored plates, 278 text illustrations, and 410 pages of text. Philadelphia and London: W. B. Saunders & Co., 1902. Cloth, $3.50.

This excellent work, one of Saunders' well-known Medical Hand-Atlases, needs no further recommendation to English-speaking readers than its author's name—Dr. Zuckerkandl. The rules and methods of surgical procedure are stated with the clearness that springs from definite knowledge and the emphasis born of conviction. The operations of modern surgery are described lucidly and tersely, making the book a worthy guide alike to the student and the practicing surgeon. The verbal descriptions are most accurately reinforced and illuminated by a large number of original colored lithographic plates and text cuts.

In this new edition the work has been brought precisely down to date. The revision has not been casual, but thorough and exhaustive, the entire text having been subjected to a careful scrutiny, and many improvements and additions made. A number of chapters have been practically rewritten, and of the newer operations, all those of special value have been described.

The number of illustrations has also been materially increased. Sixteen valuable lithographic plates in colors and sixty-one text figures have been added, thus greatly enhancing the value of the work. There is no doubt that the volume in its new edition will still maintain its leading position as a substitute for clinical instruction.

The Drug Habits and their Treatment. A Clinical Summary of Some of the General Facts Recorded in Practice. By T. D. Crothers, M.D., Superintendent Walnut Lodge Hospital, Hartford, Conn.; Professor Diseases of the Brain and Nervous System, New York School of Clinical Medicine. Pages 96. Price, $1.00 net. Chicago: G. P. Engelhard & Co., 1902.

The author of this work has been foremost for many years in studies of inebriety, and his influence has been notable in establishing a true recognition of this form of neurosis. He has also contested vigorously for the notion that alcoholism is a curable condition. In the present work the author discusses the alcohol, morphine, and cocaine habits, and even touches upon such drug habits as those of gelsemium, paraldehyde, and tea, among many others.

The book is a useful one and reflects its author's manifest enthusiasm for the subject with which it deals.

Saunder's American Year-Book. The American Year-Book of Medicine and Surgery for 1902. A yearly Digest of Scientific Progress and authoritative Opinion in all branches of Medicine and Surgery, drawn from journals, monographs, and text-books of the leading American and foreign authors and investigators. Arranged, with critical editorial comments, by eminent American specialist, under the editorial charge of Gorge M. Gould, A. M., M. D. In two volumes—Volume I, including General Medicine, Octavo, 700 pages, illustrated; Volume II, General Surgery, Octavo, 648 pages, illustrated. Philadelphia and London: W. B. Saunders & Co. 1902 Per. volume: Cloth, $2.00 net; Half Morocco, $3.75 net.

The plan of issuing the Year-Book in two volumes, inaugurated two years ago, met with such general favor with the profession that the publishers have decided to follow the same plan with all succeeding issues. Each volume is complete in itself, and the work is sold either separately or in sets.

The contents of these volumes, critically selected from leading journals, monographs, and text-books, is much more than a compilation of data. The extracts are carefully edited and commented upon by eminent specialist, the reader thus obtaining, not only a yearly digest of scientific progress and authotative opinion in all branches of medicine and surgery, but also the invaluable annotations and criticisms of the Editors, all leaders in their several specialties. As usual, this issue of the Year-Book is not lacking in its illustrative feature; for, besides a large number of text-cuts, the Surgery volumes contains five, and the Medicine volume four, full-page inserts. In every way the Year-Book of 1902 fully upholds, if it does not strengthen, the reputation won by its predecessors.

New Book on Press. Regional Minor Surgery. By Geo. G. Vanschaick, M.D., Attending Surgeon to the French Hospital and to the St. Vincent de Paul Orphan Asylum, New York.

Containing about two hundred (200) pages, and profusely illustrated with

drawings especially made for this book. It is bound in cloth and white leaf, printed on heavy book paper, and devoted to the treatment of the surgical conditions that are met with in the daily practice of every physician.

This book is thoroughly practical and presents the subject in an interesting and instructive manner. (Price, $1.50).

Published by International Journal of Surgery Co. 100 William Street, New York.

Venereal Disease. A Manual for the Students and Practitioners. By James R. Hayden, M.D., Chief of Clinic and Instructor in venereal and Genito-Urinary Diseases at the College of Physicians and Surgeons (Columbia University), New York. Third Edition. Lea Brothers & Co., New York and Philadelphia.

This number of Lea Brothers' series of pocket text-books is now in its third edition. This is of itself an iudication of the fact that the book has found a place to fill and is filling it. For general practitioners no better resume of the subject can be found in so brief a space. In the present edition new sections on venereal vegetations and on herpes progentalis have been added. This has not increased the size of the book, however, as certain merely theoretical considerations on the history of venereal diseases and statistics of their occurrence have been omitted. The book is concise, compact, handy and as complete as can be expected under the circumstances.

Saunders' Medical Hand-Atlases. Atlas and Epitome of Otology. By Gustav Bruhl, M.D., of Berlin, with the collaboration of Professor Dr. A. Politzer, of Vienna. Edited, with additions, by S. MacCuen Smith, M. D, Clinical Professor of Otology, Jefferson Medical College, Philadelphia. With 244 Colored figures on 39 lithographic plates, 99 text illustrations, and 292 pages of text Philadelphia and London: W. B. Saunders & Co., 1902. Cloth, $ 3.00 net.

This excellent volume, the first attempt, to our knowledge, to supply in English an illustrated clinical handbook to act as a worthy substitute for personal instruction in a specialized clinic, is indeed, a magnificent addition to Saunders' Series of Medicine Hand-Atlases.

The work is both didactic and clinical in its teachings, the latter aspect being especially adapted to the student's wants. A special and highly commendable feature is the very complete exposition of the minute anatomy of the ear, a working knowledge of which is so essential to an intelligent conception of the science of otology. As in all this series of atlasses, the illustrations are beautifully executed in colors, and illuminate the text in a singularily lucid manner, portraying pathologic changes with such striking exactness that the student should receive deeper and more lasting impression than the most elaborate description could produce. Further, the association of Professor Politzer in the preparation of the work, and the use of so many valuable specimens from his notably rich collection, especially enhance the value of the treatise. The work contains everything of importance in the elementary study of otology, and, without question, is a most valuable contribution of medical literature.

AHandbook of Appendicitis. By A. J. Ochsner, M.D., Professor of Clinical Surgery, College of Physicians and Surgeons, Medical Department of the University of Illinois, Surgeon to the Augustana Hospital, etc. Pages 182. Illustrated. Bound in red cloth; Price $1.00 net. Chicago: G. P. Engelhard & Co., 1902.

The author discusses the subject of appendicitis from the modern standpoint. His operative technique is amply illustrated by woodcuts and descriptive text. A valuable chapter is the one on differential diagnosis, a matter to which, in these days of hasty surgery, more attention may reasonably be given. There is little doubt that the appendix is often removed for intestinal colic. The little book covers the subject very completely.

The Practice of Obstetrics. By American authors. Edited by Charles Jewett, M. D., Professor of Obstetrics and Gynecology in Long Island College Hospital, Brooklyn, N. Y. New (2nd) edition, revised and enlarged. In one handsome octavo volume of 775 pages, 445 engravings in colors and black, and 35 full-page colored plates. Cloth, net, $5.00: leather net, $6.00; half morocco, net, $650. Lea Brothers & Co., Publishers, Philadelphia and New York.

Dr. Jewett's excellent work presents the best teaching on the present day obstetrics untrammeled by out-of-date theories and methods. The language is clear and uninvolved.

The author's collaborators are all men well known to the profession, most ot them being connected with medical colleges and hospital clinics as teachers and demonstrators.

The illustrations contained in the present edition deserves special mention. All of them are excellently done, while most of the colored plates are strikingly rich and beautiful. Some illustrate well conditions and operations which are usually not clearly shown in even the most expensive and pretentious treaties.

Dr. Jewett deserves to be congratulated upon the results of his faithful and painstaking work, which certainly attests his broad experience as a teacher, author and editor. With such a text-book at hand, the obstetrician can feel himself well equipped for any emergency.

Diseases of the Intestines: Their Special Pathology, Diagnosis and Treatment. By John C. Hemmeter, M,D., Ph.D., Professor in the Medical Department of the University of Maryland, Consultant to the University Hospital and director of the Clinical Laboratory, etc. In two volumes, Vol. I. 1901. Philadelphia. P. Blackiston's Son & Co., 1012 Walnut Street.

The thoroughly scientific character and completeness of Hemmeter's unsurpassed work on "Diseases of the Stomach" prepared the profession to expect a great treatise by the same author on the "Diseases of the Intestines," and it will not be disappointed. No better book upon the subject exists in any language, not excepting those by Nothnagel and by Boas. The book before us covers 742 large octavo pages, with another volume yet to follow. The work, really, is thus almost encyclopedic in its scope. The author treats very fully of the anatomy and physiology of the intestines, and also the pathology of diseases of the same region, as well as of the bile, pancreatic juice and other associated subjects. It is equally strong also on its clinical side, and diagnosis and treatment are discussed in a very thorough, practical and satisfactory way. the author having drawn largely upon his own personal experience in the therapy of intestinal diseases, as well as from the abundant literature of the subject. The very important subject of diet receives ample consideration. The book is well illustrated, and we see nothing in it calling for criticism, so far as the part of either author or publisher is concerned.

The Homœopathic Pharmacopœia of the United States. Second edition. 674 pages. Cloth, $3.25; by mail, $3.50. Half morocco, $4.00; by mail, $4.25. Boston. Otis Clapp & Son. 1901.

Leading homeopathic physicians believe that the first edition of this valuable work answers all practical purposes. The reviewer observes however many changes and additions.

From a homeopathic standpoint, this book is the leading pharmacopœia in the English language.

Davenport's Diseases of Women. A Manual of Gynecology for the use of Students and General Practitioners. By F. H. Davenport, A.B., M.D., Assistant Professor in Gynecology, Harvard Medical School. New (4th) edition, revised and enlarged in one 12mo volume of 402 pages, with 154 illustrations. Cloth, $1.75, net. Lea Brothers & Co., Publishers. Philadelphia and New York, 1902.

This compact volume was originally prepared for a twofold object: first to give to the student in clear terms and with sufficient details the best methods for examination, and the most trustworthy therapeutics of the more frequently met diseases of the female pelvic organs, and second to assist the general practitioner in understanding and successfully treating the gynecological cases which he meets in his every-day practice. For the sake of brevity and clearness the author describes only such treatment as in his large experience has proved to be of the greatest practical value. Special attention has been paid to many minor points which, although of great importance, have strangely enough been omitted from the larger treatises on the subject. Maximum practically has been the aim of its author, and the demand which has rendered necessary the printing of four large editions shows clearly the esteem in which his work is held by the profession.

The volume has again been carefully revised to the latest date. Considerable new matter has been added, as well as several new illustrations, but no advance has been made in its very moderate price.

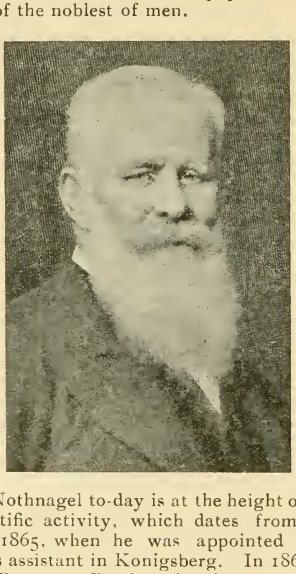
The International Medical Annual. A Year Book of Treatment and Practitioner's Index. By Numerous Contributors. Twentieth Year, 1902. New York: E. B. Treat & Co., 241-243 West 23d street Chicago: 199 Clark street. Price, $3.00.

This is the twentieth year of this publication of the Medical Annual, a fact that goes to show its popularity with the profession. The scope and volume of the work has been greatly enlaged since its first appearance. Its value to the general practitioner as a work of reference is unquestionable. It represents all the advances and improvements in all branches of medicine. We take pleasure in calling the attention of our readers to this valuable publication.

LITERARY NOTES.

Prof. Hermann Nothnagel (From the Wiener medicinische Wochenschrift, Oct. 12, 1901).

"On the day after to-morrow, at the First Medical Clinic in Vienna, there will take place the unveiling of a statue of Nothnagel erected by his disciples on the occasion of the savant's sixtieth birthday. In accordance with the express wish of Nothnagel, the celebration of the event will be private, and strictly confined to the circle of the former and present physicians connected with the clinic; but the entire medical profession of Austria will be present, in the spirit if not in the flesh, at the celebration of the anniversary of a man who has been to them a shining example as a sympathetic teacher, a humane physician, and one of the noblest of men.



"Nothnagel to-day is at the height of his scientific activity, which dates from the year 1865, when he was appointed Leyden's assistant in Konigsberg. In 1867 he was Docent at Breslau; in the year 1872 and 1873 he taught in the capacity of professor at the medical policlinic in Freiburg in Baden; later he was Ordinarius in Jena from 1874 to 1882, when he was called to Vienna. His first celebrated work, 'Handbuch der Arzneimittellechre,' appeared in 1870. This was followed by two essays replete with original observations: "Topische Diagnostik der Gehirnkrankheiten,' in 1879, and 'Beitrage zur Physiologie und Pathologie des Darmes,' in 1884. Experimental investigations of the highest importance are contained in these publications as well as in shorter compositions on the brain, the effect of lightning, temperature-sense, vasomotor neuroses, convulsions, Addison's disease, and the cardiac regulating mechanism. More recently, Nothnagel has written on two modern subjects, 'Compensatory Processes in Pathologic Conditions' and 'Vascular Pain.' Since the year 1894 he has been engaged in editing the great 'Specielle Pathologie und Therapie,' for which he himself wrote the volume on the 'Diseases of the Intestine and Peritoneum.' This magnificent work is now being translated into English and published by W. B. Saunders & Company, of Philadelphia.

"Nothnagel's imposing and winning personality shows itself in his intercourse with patients, and especially in his relations with students. We shall never forget the morning of the 16th of October, 1882, when he entered the clinic for the first time and delivered his maiden address. The student body had made his acquaintance a few days earlier, in the capacity of examiner. The logical, thorough, and scientific manner in which he made six applicants go through the examination of a case of pleural pneumonia, and the meticulous precision with which he entered into details of the pathology, and especially of the treatment, astonished every one present, and filled those who were sure of their subject with pride, while the exquisite courtesy he displayed toward the candidates, whom he in a sense treated as colleagues, aroused a feeling little short of enthusiasm. We soon learned to love the learned foreigner whose motto is contained in the words, 'If a German is to be really touched by anything, it must strike an ideal cord.' The opening words of Nothnagel's lecture contained a reference of respect to the memory of Duchek and Skoda. The change from the idyllic peace of a Thuringian country town to the busy metropolis, he said, and the thought that he was to be the successor of such men as Duchek and Skoda, would be calculated to make him lose courage if he were not buoyed up by his earnest determination to teach his Vienna students to the best of his ability. He then went on to discuss the scope of clinical instruction which is intended as a scientific training for the practical branch of medicine. It presupposes on the part of the student the requisite knowledge of the natural sciences, anatomy, histology, morbid anatomy, physiology, general and special pathology, and chemistry, and a familiarity with the technic of ausculation and percussion, of ophthalmoscopy, laryngoscopy, and microscopy. "You see," continued Nothnagel, 'what it is that I msan, and what I wish to bring about: the all-

around training of a practicing physician. There is no doubt that the tendency toward specialization in practical medicine is beneficial in the main, because it makes a more thorough study of special subjects possible; it may even be indispensable for the performance of certain technical operations; but this much may be expected from the practicing physician—that he should know enough of the so-called specialties at least to enable him to make a diagnosis and to read the indications.' He closed his lecture with the words which have since become famous: 'Knowledge obtains ethical value and true meaning only by being used. It takes a good man to make a good physician.'

"Nothnagel is more; he is also a great physician. During the twenty years of his activity in Vienna he has enriched the science of medicine by valuable investigations, has rendered assistance to innumerable patients, and has trained a number of able physicians both from Austria and from abroad; in fact, he has founded a great school. He has become one of us in the highest sense of the word. May he continue his intellectual and didactic work for many years to come. On this, the sixtieth anniversary of his birthday, it is our hope that he may rest for a moment from his weighty labors, to reflect with pride upon his relations to us, to our faculty.

"The memory of many a bitter experience may be softened by the thought that as he was hailed with joy when he was called to Vienna twenty years ago, he has, through his learning, the brilliancy of his eloquence and his exalted humanity, became the first physician, the first Good Samaritan, in the monarchy."

Annals of Surgery, Edited by Lewis Stephen Pilcher, M.D., LL.D., of New York. With the collaboration of J. William White, Ph.D., M.D., of Philadelphia. William McCewen, M.D., of Glasgow, W. H. A. Jacobson, M.Ch., of London. Table of contents for May.

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In the May Forum the first place is taken by a timely article on "The Polish Problem in Prussia." Its author, Mr. Wolf von Schierbrand, explains how it is that the national spirit of the Poles has succeeded in resisting the Germanizing policy of the Prussian Government. Prof. G. T. Ladd's paper on "The Degradation of the Professorial Office" brings to an end a remarkable series of criticisms of the present academic situation, which is also discussed in Pres. C. F. Twing's article on "Collegiate Conditions in the United States." Other educational topics dealt with in this number are "The Example of French Industrial Art Schools," by Jacob Schoenhof, and "The Negro and Higher Learning," by Prof. W. S. Scarborough. An important statistical article is contributed by Henry Gannett, who shows "Our Industrial Position in the World" by comparison of our exports with those of other nations. A less gratifying contrast is that pointed by Prof. A. D. F. Hamlin in a protest against "Our Public Untidiness." A valuable light is thrown upon Italian social and industrial conditions in an article by Dr. Wolcott Calkins on "Taxation and Business in Italy." Hon. W. C. Mains warmly recommends the Torrens system for "The Registration of Title to Real Property." The list of contents also includes "Wage-Earning School Children in England," by Thomas Burke; "The Prob-

lem of a Pure Milk Supply." by Dr. Henry Dwight Chapin; "Comparative Pension Systems," by Frederick Fenning; "American Forestry: a New Career," by J. Russel Smith; and "Reclaiming the Arid Southwest," by Robert M. Barker.

ABSTRACTS of the Leading Articles of the Month.

Aseptic Surgery.

McBurney (New York Medical Journal, March 22, 1902) advocates the use of the rubber glove as the only method of sterilizing the hand, and claims that the alledged advantages from loss of the tactile sense, etc., are not realized. It is of great importance also to have a first-class asssistant; frequent changing of assistants is deprecated. The knives should be sharp so that incisions will be clean-cut; all so-called blunt dissections should be avoided, as they affect the vitality of the parts. The more perfectly nutrition is furnished through uninjured blood vessels to the tissues involved in a wound the more certainly will scattered bacteria be destroyed. Hemorrhage should be checked as early as possible to save the blood and also to prevent the formation of small blood clots which may be left and produce culture facilities for germ growth. Antiseptics must be regarded as harmful foreign bodies and totally unsuited to the interior of any wound. The ligature should be fine material so as to leave only small knots and should strangulate as small a bit of tissue only as is essential; all ligatures and buried sutures should be of absorbable material, like catgut. Hemostasis should be as complete as possible. Complete aseptic work demands that the wound should be treated with the utmost delicacy in this respect and the avoidance of over-injury of tissue as far as possible. He says that it is frequently possible by exercising sufficient care to obtain clean aseptic healing in septic wounds, and as an instance of this notices his success in the treatment of abscesses. It is a good idea to give sufficient volume of blood to the tissues. He recommends the rectal injection of hot normal salt solution. Wounds should be immobilized to prevent hematoma and dressings should be large for protection and soft for comfort.

Amoebic Dysentery in Children.

Amberg (Johns Hopkins Hosp. Bull.) reports 5 cases of amoebic dysentery. Two of the 5 cases occurred in members of the family exposed to the same influences; 2 others were playmates, and had both been drinking gutter water, while a third companion of theirs, whose case is not recorded, was taken ill with similar symptoms. Four of the cases were of a mild type, with scarcely any alteration in pulse and temperature, the number of stools varying from 2 to 6 in twenty-four hours. In one case—a boy aged 5—the symptoms were more severe, the general nutrition being interfered with, and more or less anorexia, increased frequency of pulse and irregular exacerbations of temperature at night, the number of the stools varying from 8 to 15 in twenty-four hours. In the mild cases strikingly little pain and discomfort was complained of, rendering it difficult to enforce the necessarily important rest. Two of the cases had prolapse of the rectum, which was reduced spontaneously. None of the cases showed any affection of the liver, abscess (so common in amoebic dysentery in adults) being rare in children. The faeces were usually alkaline, and varied very much in consistency, being mingled with or followed by blood and mucus, and being very offensive. In 3 of the cases during convalescence the mucoid masses were replaced by stools of gelatinous consistence composed of continuous layers of epithelial cells. The diagnosis was based upon the finding of motile amoebae containing red blood corpuscles, and sometimes in the acid stools they continued to move for two or three hours. Surviving amboebae were stained with toluidin blue by Harris's method, which stains the endosarc blue, leaving the ectosarc free or less deeply stained; but the amoebae are not instantly killed by the stain, as stated by Harris, but were found motile even three or four hours afterwards, the motility varying inversely with the depth of the stain. Methylene blue and neutral red makes a good stain when, as in the former instance, the endorsarce takes the stain, while the ectosarc remains free. Charcot-Leyden crystals were present in 4 of the cases, and Lewy insists upon a close relationship existing between them and the eosinophile cells, which latter in these 4 cases were never absent, though their number were varied considerably. No conclusion could be drawn as to there being any relationship between the numbers of amoebae, crystals, and eosinophile cells, nor could any be established between the number of crystals and eosinophile cells in the faeces and the number of eosinophile cells in the blood. Pear-shaped monads with a flagellum at each end were found in the same 4 cases, but they were not constant either in occurrence or numbers. In 2 of the cases nucleated red blood corpuscles were seen, and in 4 of the cases there were varying degrees of anaemia from deficiency

in haemoglobin, with evidence of leucocytosis in all. The presence of Charcot-Leyden crystals in the passages of a child may point to amoebic dysentery, since the amoebae themselves may only be found after several examinations.

Artificial Infant Feeding.

Visanska (Pediatrics, Feb. 15, 1902) says that when feeding a baby artificially, three important factors are to be borne in mind: First, the quantity of the food; secondly, the quality of the food; thirdly, the individual peculiarities of the child. The writer says that one of the most frequent mistakes made in feeding a baby is that of giving it a much greater quantity than it can possibly assimilate, with a result that a child either vomits it or passes it through the bowels in an undigested state.

Regarding the character of food to be given a child, that is its quality, it is evident that the more closely the food resembles mother's milk the more likely it is to agree with the chiid. The writer says that his experience has taught him that modified cow's milk is the ideal food for feeding infants. He says that the method he has adopted for feeding babies is that of Prof. Seibert, and that is to feed according to the weight and not the age of the child. Visanska says that it is of no advantage to have the milk from one cow, it is in fact a distinct disadvantage, for the great difference which exists between milk of different cows makes it impossible to prepare a proper imitation of mother's milk, according to any fixed rules, unless we should have individual cow's milk analyzed in order to determine in just what way the mixture should be made. Besides this, the milk of any cow is subject to variations from time to time, depending upon the nature of the food given it, the health of the animal and other factors.

A Case of Appendicitis in Which the Appendix Was Lodged in, and Adherent to, the Femoral Canal.

J. H. Galton (The Lancet, March 29, 1902) reports a case occurring in a woman of thirty-two years. Operation revealed the following conditions:

The head of the colon was found to be adherent to the anterior abdominal wall just below the incision. It was extremely difficult to find the appendix, which was firmly bound down by a strong meso-appendix adherent throughout its length to the posterior wall of the abdomen and dipping down for a quarter of an inch into the femoral canal, to which it was adherent. A strong and old adhesion also bound it to the ileum. The meso-appendix was pierced at an inch from the sæcum, and a ligature which was passed around the appendix at this part gave control over the process during the operation. The adhesions of the appendix to the posterior wall were soft an separable by the nail, but in the process of doing this the soft and swollen appendix was torn in the middle, and both ends were at once secured with forceps and ligatures of carbolized silk. The seperation was then continued till the tip of the appendix had been enucleated from the femoral canal. The strong adhesion to the ileum was then ligatured and tied with silk, and the meso-appendix was divided into four parts, each of which was separately ligatured. A portion of peritoneum was then dissected back from the appendix above the temporary ligature and a permanent ligature applied half an inch from the cæcum; the whole appendix was then cut off, a drop of strong carbolic acid was applied to the mucus membranes, and the deflected peritoneum was drawn over and secured by two fine silk ligatures. Recovery was uneventful.

A Conservative Element in Acute Mastoid Surgery.

Dr. Edwin W. Pyle (Archives of Otology) gives statistics from twenty-four physicians in general practice throughout the country, which are verified by his personal experience of twenty-five years in general practice and four years in special work, to show how seldom mastoiditis needs operation. Dr. Pyle gives the history of a case of acute mastoiditis following scarlet fever, which presented pronounced indications for operation, but the patient refused to undergo any operation, and under the influence of hot douching he made an excellent recovery.

The Disadvantages of Gauze Packing in Appendicitis Work.

Morris, (New York Medical Record, March 22, 1902) states that gauze packing sometimes causes ileus and bowel obstruction by simple and direct mechanical pressure. It more often causes an excessive exudation of reparative lymph, which may result in annoying peritoneal adhesions and life-long discomfort for the patient. Its employment usually leaves a very weak place in the patient's abdominal wall, and invites the development of post-operative ventral hermia. In his opinion the worst feature of gauze packing is the tendency it seems to possess to depress the patient's general resistance and to prolong, if it does not sometimes also cause, the condition of surgical shock. The great misery

caused by the removal of the gauze packing, when a change of dressing is made, can be described only by the patient. Since the use of iodoform has become so widespread, the danger of iodoform poisoning has been added to that of the formerly used plain gauze. Many of these cases have been and are still regarded as being cases of septicemia; while the symptoms of these two states are very similar, in iodoform poisoning the wound is apt to look remarkably well, while the patient does not; whereas in septicemia, neither the wound nor the patient looks remarkably well In the former condition, free iodin can be found in the patient's urine, and a simple test consists in adding calomel to a specimen of the urine, and noting the reaction as iodid of mercury is formed when the mixture is stirred. He believes that it is not safe to teach that gauze packing should be at once given up, but that one should work toward the point of giving up gauze drainage as rapidly as experience proves that it can be safely done.

Entero-Vaginal Fistula.

Frederick (Amer. Jour. Obstet.) describes the case of a patient, age 32, who was the mother of four children. A year after the birth of the last she fell ill for a few days; her doctor found her reduced in flesh and strength, with fever and fetid discharge. Sloughing of the vaginal portion of the cervix was detected, and attributed to malignant disease. Frequent vaginal hæmorrhages began a fortnight later, and lasted for nearly a week. The curette brought away soft tissue, and the sound passed freely into the abdominal cavity through the uterus. At the end of three months she was very ill, foul discharge continuing all the time, but then faeces began to pass through the vagina freely after several weeks of obstinate constipation. At the end of three months the patient was restored to health, but the faeces passed entirely through the vagina. Dr. Frederick examined the patient, and could find no trace of malignant disease in the neighborhood of the cervix. The left half of the cervix and uterus were gone, the finger could with ease be passed into the fundus. The bleedings six months previously arose, it was clear, from ulceration into the uterine vessels. Intestinal mucous membrane protruded into the orifice in the vagina. Four inches above the anus there was complete occlusion. Abdominal section was performed. A mass of adherent intestine, tube, and ovary, and inflammatory deposit filled the left side of the pelvis. The sigmoid flexure opened into the vaginal fistula. Three inches of abdominal occluded gut separated it from the occluded upper end of the rectum. The rectum was united by a Murphy's button to the sigmoid flexure. The occluded segment of intestine was sewn over the opening into the vagina, as the broad ligament had been destroyed by sloughing, and no other structure was available. The bowels acted on the fourth day, and the button came away on the eleventh. Perfect restoration to health was the ultimate result of the operation. The cause of the sloughing and fistula was most probably a sigmoid ulcer due to a splinter of bone or other foreign body wounding the mucosa and setting up an infective inflammatory process which involved the left broad ligament, vagina, and uterus.

Enlargement of Bronchial Glands in Children.

D. McM., Officer (Intercolonial Medical Journal of Australasia) calls attention to the large number of children who are affected with enlarged bronchial glands, which are so often the starting point of tuberculosis. In the diagnosis of the condition, if it be found that there is definite enlargement which persists for more than a fortnight or so, it should be assumed in the majority of cases that it is tuberculous, and the patient should be treated by open air, forced feeding, careful attention to hygiene, and guaiacol, and cod-liver oil internally. For the spasmodic jerky cough, he uses thirty drops of creosote, with or without menthol, burnt on a shovel in the patient's room at night. At any time during treatment, sudden dissemination may take place, such as pulmonary infection, or even a general tuberculosis. Caseous glands have been known to rupture into a bronchus, with perhaps immediate suffocation from caseous material aspirated, or by hemorrhage into the bronchial tube. He pleads for early recognition of a pathological process which has been largely overlooked in children, and which has an important and lasting effect on their lives.

The Etiology of Prostatic Hypertrophy.

The Medical Press and Circular has the following to say in regard to the etiology of prostatic hypertrophy:

"It is really somewhat remarkable that so little should be known of the cause and pathological nature of the prostatic hypertrophy which embitters the declining years of so many elderly men. To call it an 'idioplastic tumor,' as did Sir Henry Thompson, does not help us greatly to understand its causation, especially as the tendency of age is in the direction of atrophy rather than hypertrophy so far as the genital organs are concerned. More plausible is the

view promulgated by Reginald Harrison, viz: that the hypertrophy is due to overexertion of this particular organ, being akin to the cardiac hypertrophy resulting from prolonged strain. This view, however plausible, is not absolutely in accordance with clinical experience, which favors the theory that overexertion—that is to say, chronic cystitis or venereal excesses—though it exaggerates any preexisting condition, does not *per se* lead to hypertrophy, in the absence of some other ill-defined factor. On the whole it seems more reasonable to regard the overgrowth as analogus to fibromyoma of the uterus. This view concords better with the erratic occurrence of this morbid development, and makes essentially a constitutional condition rather than an accidental or acquired infirmity. After all, however, the most plausible explanation is but a mere hypothesis, only a little more respectable than those speculations which bring diet, occupation, modes of living, abstinence and indulgence, sexual habits, gout, rheumatism, and gonorrhea into direct or indirect etiological relationship with the disease. As is almost invariably the case when the etiology has not been cleared up, the pathology of the disease is also incomplete. Our ignorance of these fundamental facts concerning prostatic hypertrophy has fortunately not deterred surgeons from working at the problem of its relief, with more or less success; but in a condition the consequences whereof are essentially of a purely mechanical nature the relief under the circumstances can only be partial and incomplete, hence the importance of studying the means of preventing its occurrence."

Diphtheria.

W. J. S. Dodds (Indiana Med. Jour.) says that it is one of the few diseases that are practically within our control; that the diagnosis can be positively and accurately established in every case; that by the use of antitoxin we can save 86 per cent. of all cases, and in private practice even a much higher per cent. is obtainable. In all cases the antitoxin should be given at the earliest possible moment, and should be given in one dose sufficient to protect the case. In mild cases one is safe in using as the primary injection 1,500 units, and this may be increased or repeated as symptoms demand. Most observes connected with hospitals favor the use of large doses of antitoxin because better results are obtained, and also because the cases are usually neglected for several days before admission is applied for. There can be no harmful effects following the use of the agent. The unpleasant symptoms following its use can be attributed to the horse serum alone. Behring has produced a dry form of the antitoxin which is entirely free from the unpleasant effects. Antitoxin cannot restore tissue cells that have been damaged by the subtle toxins of the diphtheria bacillus. Its use is to prevent the toxin from combining with the cellular elements to their destruction. Biss says it is doubtful if antitoxin is of any use after the fifth day, unless there is evidence of further production of toxin. The longer the disease has lasted the larger should be the dose of antitoxin. If there is any doubt between giving 8,000 units or 12,000 units, give the larger dose and be on the safe side.

The Hypnotic Action of Apomorphin Hydrochlorate in Alcoholism.

Coleman and Park (American Medine, March 8, 1902), after using apomorphin in 300 cases of alcoholism, conclude:

1. To obtain a hypnotic action with apomorphin it should be given hypodermically.

2. The dose cannot be fixed. It is best to begin with a small dose—1.30 gr. or less—and to repeat this or give a slightly larger dose within a short time. Further doses should not be given after vomiting occurs, until several hours have passed.

3. Doses repeated in two or three hours have but little beneficial effect.

4. The administration of apomorphin should not be repeated in patients who are weak.

5. The duration of the hypnotic action is only a few hours, and when the patient awakes his condition is practically unchanged, except in "ordinary drunks."

6. The best results are obtained from apomorphin when it is followed in two or three hours by some recognized hypnotic, as bromid, chloral, paraldehyd, etc.

7. Solutions of apomorphin are unstable and should be freshly made for use. Old solutions should never be used.

8. Apomorphin may be employed as a hypnotic in selected cases of alcoholism. They obtained the best results in "ordinary drunks" and in cases verging on delirium tremens. But in some of these the drug has no effect whatever.

9. The administration of apomorphin to patients in delirium trements is, in their experience, without beneficial result and may even be attended with danger from its depressing action.

The Prevention of Post-Operative Adhesions of the Peritoneum.

Dr. G. G. Ward (Am. Jour. of Obst.) In this paper the author concludes as follows:

1. The attainment of asepsis as perfect as is possible, by the rigid adherence to the most modern methods of securing surgical cleanliness.

2. The avoidance of raw surfaces and pedicle stumps by covering them with peritoneum or grafts of omentum and the abandonment of the ligature *en masse*.

3. Protection from dry-air contact by the employment of *moist asepsis* instead of *dry asepsis*, and keeping the exposed parts covered whenever possible.

4. The time element-rapidity of operating by technical skill, thorough preparation, and trained assistants.

5. Keeping up the heat of the peritoneal cavity by frequent removal of the hot salt solution (115 deg. F) and protection of the exposed parts.

6. Avoidance of excessive manipulations of the intestines by technical skill, proper anti-operative preparation of the bowels and posture, to prevent pseudo ileus.

7. Replacement of the loops of intestine and omentum by filling the abdominal cavity with hot salt solution before closing, and thus floating them, that they may more readily adjust themselves in their proper relations.

8. Free motion of the patient after the operation to be encouraged instead of prohibited.

9. Early use of the high enema (during the first twelve hours) in conjunction with cathartics, and, on failure, the prompt use of oxgyen in the Trendelenburg posture.

The Relative Importance of Disease of the Heart Muscle and the Heart Valves.

Louis Faugeres Bishop (Pediatrics,) lays stress on the fact that cardiac disease is a good deal more than a simple mechanical disturbance of the valvular segments. The man who in these days would make it a practice to give digitalis in a routine way to every case that presented a murmur would indeed be a poor exponent of the modern art of medicine. Dilatation is capable of producing murmurs as marked as endocarditis; when we add to these the so-called hemic murmurs and the anonymous murmurs heard under the clavicle and various other places, it is evident that to diagnose a cardiac murmur as due to deformity of valve segment requires not only careful examination and investigation, but prolonged observation as well. If the muscle of the heart is healthy a moderate degree of leakage need not cause anxiety. Disease of the valves is, of course, a dangerous and irremediable condition, but what strikes terror to the heart of the student of cardiac pathology is the existence of the signs of a failure of the heart muscle. This failure occurring in the course of cardiac disease, with or without valvular lesions, is far more grave than the development or existence of leakage of the valves.

The Indications for Myomectomy in Young Married Women.

E. Reynolds (Journal of the American Medical Association, March 8, 1902) mentions the following diagnostic points:

1. The appearance in the early part of the puerperium of severe, intermittent, paroxysmal pains bearing close resemblance to labor pains, and referred to a definite spot at which there is acute tenderness.

2. The appearance, after a few hours of these pains, of the symptoms of a pelvic peritonitis, and often in an alarming degree.

3. The detection on physical examination of an irregularity in the uterine wall at the tender spot, not necessarily of large size, and possibly to be made out only under anesthesia.

The principles of treatment should be:

The control of the pain by morphine, and if this is not promptly successful, by brief but profound anesthesia, which should be succeeded by relief, and should be repeated whenever the pain reappears.

If the preceding measures fail, and the patient is still in good operable condition, an immediate myomectomy is probably the best treatment.

If the condition has remained undiagnosed until the peritoneal symptoms are extreme and an abdominal operation will probably involve a high mortality risk, and if in this case the tumor is in any way accessible from below, its free puncture and the drainage of the contained serum may probably be relied upon to terminate the attack, and permit a safe removal of the tumor at a later date, should that be necessary.

Quinine as a Dressing.

Reid (Lancet, February 15,) uses quinine and cod-liver oil with good results (one drachm to eight ounces in emulsion, to be shaken up before being used) in tertiary and rheumatic ulcers of the leg and for ordinary ulcers, in a case of gangrene of the skin, and after a burn, where a large surface (about a foot square) formed a slough and had to be removed as ulceration loosened the thick slough. All wounds took on a healthy and kindly action, and the pus from the sloughing derma smelled sweet and contained a limited number of cocci. The dressing has nothing to recommend it in the way of cheapness or of odor, but it has the advantage of supplying a weak-

ened system with an oily food and a tonic drug. For intertrigo, he has used it with good effects if not long required. For eczema it seemed to act well if stomach troubles were seen to.

Turpentine as an Antiseptic.

According to the Medical Record glycerinated turpentine may be used with success as an antiseptic in the treatment of wounds. Dr. Kossobudsk fills a sterilized bottle with glycerin and adds a small quantity of turpentine. This should be well shaken and allowed to stand for two days. Then he adds a small quantity of a 5 per cent. solution of hydrogen dioxid. It is then ready for use. As an antiseptic it checks excessive secretion when applied to wounds, relieves pain and swelling, and promotes the healing process. This action is thought to be due probably to the oxygen liberated, and partly to the properties of the turpentine.

Anterio-Posterior Flap for all Amputations.

Vance (Louisville Medical Journal) describes the operation as follows: "An ordinary wide-bladed scalpel is held with handle at right angles to the axis of the limb and entered on the side, a little below the point of proposed bone section, cutting through skin and cellular tissue, parallel with the axis of the limb two inches, then across the limb in a slight curve, ending the incision opposite the starting point. The ends of this incision represent the base of the anterior flap, which is dissected up. The posterior flap is made in the same way but shorter, so that when they are brought together the line of closure will be back of bone or bones, as it may be. With the same small knife the muscles are divided circularly at right angles to the axis of the limb and on a vertical plane with proposed bone section, the flaps being held up by an assistant with two pairs of single-tooth forceps, care being taken not to incise the periosteum; with the same knife the interosseus space is divided half an inch below the point of proposed bone section and a long anterior periosteal flap is lifted, and held well up out of the way of the saw, which is introduced on a slant downward at an angle of 45 degrees, and the bone is divided for three-quarters of an inch and then re-entered vertically a little below the former point, both bones being completely divided. In this way the tibial crest is beveled before the limb is removed. Of course, when it is a thigh or arm amputation this is not called for. In a leg amputation the fibula is shortened three-fourths of an inch with the saw, slanting upward. It is my custom to use constant irrigation over the part while bones are being sawed to prevent possible heat necrosis. The vessels are carefully isolated and tied with plain catgut—No. 3 for femoral, No. 2 for tibial vessels. The nerves are drawn down and cut off square, three quarters of an inch above the muscular section, the hemostatic bandage is removed, small vessels torsioned, oozing stopped by hot sponging with salt solution or by irrigation with same. The periosteal flap is sutured over the end of the bone by fine catgut. The flaps are accurately brought together by interrupted silkworm gut sutures, four or five being sufficient, then a continued fine suture of plain catgut closing perfectly the whole line of incision, except one-quarter inch at outer angle, where a short rubber drainage tube is introduced. A full aseptic dressing finishes the operation. At the end of 24 or 48 hours the drain is removed, and a second dressing applied, which is left on until the seventh day, when the silkworm gut sutures are removed and the stump is found firmly healed." The question as to where to amputate can be answered in a few words. The point of selection for the leg is seven inches from the floor or four inches above the ankle joint. No operation between this point and the mid-metatarsal region is surgical unless it is perfectly evident that an artificial limb can not be obtained. In all operations between this point and four inches below the base of the patella the old rule of save all you can should be followed. The point of selection above the knee is three inches above the patella. All operations between the site of the last-mentioned tibial and the first femoral are unsurgical without reserve. Above this point of selection the old rule of conservatism should be followed excepting in malignant disease, when it is a question whether to do disarticulation in the hip, or leave sufficient bone for an artificial limb, and as a rule he does the latter. The question when to amputate is a little harder to answer. In most cases it is easy, but occasionally, difficult. If the surgeon thinks that there is a chance that the result of conservatism would be inferior to an artificial limb he should amputate, especially if he thinks the effort to save the limb is attended with greater risk. The patient frequently decides the question for him, but often disastrously. The difficulty then arises in case of chronic bone disease or ankle and knee. The chances of getting good results in conservatism in these is in proportion to the age. All malignant disease of the bones, joints or other parts call for amputation, excepting some of the skin cancers, the rules being to get well above the proximal point. Amputation for convenience are often indicated, the patient

being more comfortable without the useless limb and with an artificial one. Frequently patients are thus converted from helpless cripples into useful members of society. In amputations of the hand or arm the rule of save all you can is to be followed, especially in laboring men.

Treatment of Acute Puerperal Sepsis from a Surgical Standpoint.

N. Vineberg (Medical News, April 5, 1902) lays stress on the following points: 1. Every case of puerperal sepsis is wound-fever or wound-infection, and should be treated on the same general surgical principles applying to wound infection elsewhere. 2. Each case of puerperal sepsis, no matter how slight, should be carefully observed and watched from the outset, for we can never tell whether such a case may not develop into a serious infection which will be a menace to life. 3. When a case of uterine sepsis progresses unfavorably after curetting, irrigation, and proper general treatment, as evidenced by the pulse, the temperature, and the condition of the uterus, we are justified in opening the abdomen and removing the uterus, unless, after opening the abdomen, we find some condition outside of the uterus to account for the persistence of the sepsis, or unless we find some condition in the uterus itself, as a single intramural abscess or a localized gangrene, which would permit of removal without ablation of the whole organ. 4. When a uterine infection extends to a tube or ovary, setting up a violent grade of salpingitis or ovarian abscess, the abdomen should be opened without delay and the affected tube or ovary removed. 5. When a uterine infection sets up a septic inflammation of the peritonæum, the abdomen should be opened and the uterus ablated, the peritoneal cavity flushed with saline solution, and free drainage employed through the vaginal opening. 6. To operate for these conditions when the patient is evidently moribund is unjustifiable, and can serve only to bring discredit upon the profession and upon the operation.

Reasons for Early Operation in Acute Mastoiditis.

Dudley (Pennsylvania Medical Journal) says that a certain number recover with but little or no treatment.

On the other hand, there are a rather large number of cases of mastoid involvement that neither undergo spontaneous resolution, nor do so by the particular form of treatment adopted. In this class of cases the mastoid becomes slightly swollen as a rule, and more or less edematous. The patient complains of a deep, often throbbing pain, which increases from day to day, and sometimes from hour to hour. It is not absolutely necessary to operate in such a case at once. If the ear is discharging freely and there is no sagging of the posterior wall of the canal, an ice-coil for twenty-four hours, with other suitable measures, will often relieve the whole situation as far as the mastoid is concerned. If it does not, then the ear should be inspected for probable lack of free drainage. If there is any suspicion that this is not taking place, incise the membrana flaccida freely. Carry the incision well out into the canal, irrigate the ear frequently and thoroughly with antiseptic solution, and wait twelve to thirty-six hours, depending upon the urgency of the symptoms, and if at the end of this time there is no amelioration of the symptoms, it is better to operate and relieve the symptoms. In at least nine cases out of ten, pus will be found in the antrum, and many times there will be a breaking down of the pneumatic interspace and cancellous tissue. In any case, should a mastoid remain tender and painful, with more or less swelling, for a period of a week, even though the other symptoms are not urgent, it should be operated.

Aside from the intractable chronic otitis media purulenta that is sure to follow these cases when allowed to continue, an extradural abscess, or a meningitis, or cerebral septic thrombosis of the lateral sinus, with all their attendant fatalities are by no means seldom seen.

This class of cases comes to the aural surgeon so often that he is ever impressed with the fact that the dangers accompanying a case of mastoiditis, not operated in early stages, have not, up to the present time, been impressed upon the mind of the profession at large with sufficient force to enable it to appreciate its gravity.

The Treatment of Suppuration in the Uterine Appendages.

C. P. Noble (American Medicine, March 29, 1902) draws the following conclusions from his 200 operations:

The methods of dealing with suppuration of the uterine appendages have been greatly improved within the past fourteen years. The mortality has been reduced from more than 16 per cent. in the first half of this period to less than 5 per cent. in the second half.

This reduction in the mortality has been obtained by: 1. Abandoning abnormal section in the treatment of pyosapinx and abscess of the ovary when complicated by intraperitoneal abscess, and by substituting direct incision and drainage in this group of cases, and also for recent cases of pelvic

suppuration of puerperal orgin. 2. By substituting hysterectomy for oophorosalpingectomy for the removal of bilateral suppuration in the uterine appendages.

These changes in methods of operation have permitted the development of a much more perfect technic, which yields greatly improved results, remote as well as immediate. Ventral hernias, pedicle abscesses and troublesome intraperitoneal adhesions have become very rare instead of very frequent sequels of abdominal operations.

Free incision and drainage in cases of suppuration of the uterine appendages complicated by intraperitoneal abscess has proven to be a most valuable life-saving measure, yielding a mortality of less than 2 per cent. as contrasted with 27 per cent. from abdominal section. The remote results have been scarcely less gratifying, 32 of the 54 having been permanently cured.

Incision and drainage has proved to be a most conservative operation, not only in the saving of life, but in the conservation of the sexual organs. Of the fourteen patients in whom subsequently a radical abdominal operation was performed, in only three was it necessary to remove more than one uterine appendage. The substitution of incision for the radical operation has saved many young women from the annoyance of a premature manopause, and has enabled a number of them to bear children. Six pregnacies are known to have occurred, resulting in five children—one pair of twins, one miscarriage, and one pregnancy now developing.

Direct incision and drainage finds its best indication in: 1. Puerperal phlegmon. 2. Puerperal ovarian abscess, intraperitoneal abscess and pyosalpinx. 3. In complicated cases of pelvic suppuration of whatever origin, in which the pus is not contained with the ovary tube.

The value of direct incision is most manifest in the worst class of cases, in which the patient is acutely ill from suppuration and peritonitis, and in which abdominal section gives its worst results.

Transmission of Consumption.

Behrens (Interstate Medical Journal, February, 1902) says that human sputum stands pre-eminent when tubercular in the trasmission of consumption. Hereditary consumption is rare and can be dismissed with passing notice, but that immunity is rendered to the offspring of the consumptive born during the disease of parent is far from being proven. The writer says that meat, milk, chesse, butter, etc., derived from cattle and animals infected with tuberculosis, can produce tuberculosis in the human being. He says that laws more stringent regarding expectoration, isolation, inspection of animals, hygiene, and sanitation should be enforced. If these were done Behrens says he thinks that consumption would belong to that class of diseases, such as scurvy, smallpox, cholera, etc., heard of frequently, but seldom seen.

Rupture of Interstitial Pregnancy: Operation: Recovery.

Lapthorn Smith (Montreal Med. Jour.) reports a case, age 30, who was married at 18; had pelvic inflammation shortly afterwards, and her husband died of tuberculous phthisis. She married again at 22, and was perfectly regular for eight years. Then she had a violent attack of pain, syncope, and the usual signs of internal haemorrhage just six weeks after the last period. The breasts had swollen, and morning sickness had set in. Operation was delayed till the patient was very ill from repeated attacks of haemorrhage. The abdomen was opened two days less forty minutes from the rupture; then came a gush of bright red blood. Neither tube was ruptured; the right was closed and full of fluid. On drawing up the uterus the source of haemorhage was traced to a ruptured interstitial or tubouterine pregnancy, half way between the middle line of the fundus and the left cornu. The rent and the cavity were closed with a double layer of catgut stitches; the deeper, which obliterated the cavity, was just firmly tied. The left tube and ovary, on the affected side, and a new ostium was made in the right tube. A gallon of fluid blood and clot was removed; some large ovagula lay behind the stomach and under the liver. Then the peritoneum was flushed with a gallon of salt solution. Two quarts were left in the abdomen, and a pint of salt solution thrown into the rectum every two hours all day. After forty-eight hours the patient rallied, and in three weeks she was convalescent.

A New Test for Albumin.

F. C. Fuhs (Medical Record, March 8, 1902) says that this new and simple test is based upon the following facts: 1. Albumin is coagulated by carbolic acid; 2, equal volumes of non-albuminous urine and a mixture composed of equal parts of carbolic acid and glycerin form an emulsion, which clears up entirely upon agitation, leaving a perfectly transparent and highly refractive liquid; 3, equal volumes of albuminous urine and the above mentioned carbol-glycerin solution, when mixed together, produce a white turbidity, which remains, in spite of agitation, and does not precipitate on standing, nor redissolve.

The test is very sensitive, distinctly show-

ing the presence of 0.1 per cent. of albumin in the urine, the degree of turbidity being proportionate to the percentage of albumin contained in the urine.

Numerous and repeated experiments were made to substantiate the observation that this turbidity occurs only when albumin is present, and furthermore, that it is due to the presence of albumin and is a suspension of coagulated albumin.

For this purpose many specimens of both nephritic urine and urine of patients suffering with cystitis have been tested, as well as numerous specimens of urine proved free from albumin by the recognized and generally used reagents for the detection of albumin.

In no instance did a urine shown to be free from albumin by the recognized tests present the slightest turbidity by this new reagent, nor did a urine proven to be albuminous by the same tests fail to show the characteristic white turbidity after treatment with the carbol-glycerin solution.

The method of applying the test is very simple, and requires as little or less time than the other reliable tests for albumin, and as the carbol-glycerin solution is a non-irritating mixture, it is much to be preferred to the disagreeable nitric acid.

The solution consists of carbolic acid and glycerin, equal parts. Glycerin is added to prevent the formation of a permanent emulsion between the carbolic acid and the watery element of the urine, and is added in excess, so that no possible error can occur from this cause.

Test.—Two cubic centimeters of carbol-glycerin solution is poured into a small test tube, and two cubic centimeters of the filtered urine is added. Mix thoroughly with a glass rod, or agitate. If a clear, transparent liquid results, there is no albumin present; but if the slightest turbidity is noticeable, the urine is albuminous.

The Pathology and the Etiology of Prostatic Hypertrophy--Suprapubic Drainage and Myomectomy of the Prostate as Methods of Treatment and Cure.

Bernays (Interstate Medical Journal, February, 1902) says that in old cases of hypertrophied prostate, palliative measures are sometimes preferable to radical measures.

Drainage of the bladder by the suprapubic route is preferable to perineal drainage in cases of cystitis, because the suprapubic method gives the spincter apparatus more complete rest than the perineal buttonhole or fistula.

In cases of hypertrophy in which the patient's health has not been injured by chronic cystitis or nephropyelitis, the dangers of myomectomy or perineal prostatectomy are minimal, and in these cases a radical and satisfactory functional result can be achieved by myomectomy.

Bottini's operation must be regarded as a palliative measure, intended to enable the patient to evacuate his bladder more completely than before. It will probably have a very limited usefulness and will be crowded out of practice as the technique of myomectomy or perineal prostatectomy is perfected.

Bottini's operation is a dangerous operation, and must not be undertaken unless most careful measurements have been made. It is often followed by extravasation of urine into the perineum, and perineal section must be done in order to save the patient's life as soon as swelling of the perineum is noticed.

Myomectomy done through a perineal incision is the operation which promises the best results, and is the operation of choice. It is applicable to the greatest number of cases in which permanent cure may be expected, the kidney being physiologically sufficient and unimpaired. The greatest dangers associated with prostatectomy are produced by injuring or removing parts of the capsule of the organ. Myomectomy must be done without this dangerous manipulation. As long as the capsule is left intact there is but little hemorrhage, and the danger of infiltration of urine and sepsis is reduced to a minimum.

Remarks on Some Points in the Treatment and Morbid Anatomy of Enlarged Prostate.

Wallace, (British Medical Journal) believes that from the examination of specimens and attempts in the post-mortem room, it does not appear possible to enucleate the prostate in its normal state; the normal organ has no separable capsule. The connection between the prostate and the urethra is even more intimate than that between the prostate and its fibrous covering. When the organ is the seat of an adenomatous hypertrophy it has long been known that certain tumors are enucleable. These are of very various size and shape; they may be round, oval, lobulated, and are often compound. The ease with which they are removed depends upon two factors: Their situation, and their isolation from the surrounding tissue. If they have so grown as to protrude into the bladder, the line of separation, after the incision of the mucous membrane, is soon reached and the enucleation is quickly carried out.

There are no appearances presented by

tumors removed from the prostate and supposed to represent the whole organ, that cannot be accounted for equally well by the supposition that they are adenomata. On this theory, the encapsolation, the ease of removal, the absence of bleeding, and the safety of the ejaculatory ducts, can easily be explained. That is, there is no doubt that so-called total prostatectomy is nothing more than the removal of adenomatous masses. There are unfortunately some cases of enlarged prostate which do not present any easily separable tumors, and any attempt at removal simply results in tearing portions of the organ away piecemeal.

Alcohol as a Theapeutic Agent.

Hewes (Boston Medical and Surgical Journal, March 13, 1902.) maintains that alcohol is a narcotic or anesthetic and that its action on the nerve cells is directly poisonous. He states that as a stimulant it is insufficient and in continued doses is not a tonic to nerves or muscles. As a narcotic and, if useful, in what cases, must be determined by therapeutic experience. It is to this special influence of alcohol, he holds, that the majority of medicinal effects, variously interpreted as stimulative or tonic, are due, always excepting the momentary irritant action. As a stomachic he finds it of little value. It may stimulate the appetite by its pleasant taste and slight irritant action. As a food in health it can play no part. In pathologic conditions the matter may be different and there may be cases where no other food can be taken. In fever, oxidation is more active and this may account for the commonly reported observation that patients with fever can take more alcohol than people in health. This, however, is only a question of an immunity to the poison, not the loss of the poisous action of the drug. Dr. Hewes' study of the pharmacology and experimental work upon alcohol proves to him that it is never a heart stimulant or dynamogenic for nerve and muscle, but always a depressant when used continuously. The doctor would not say that it has no value as a therapeutic agent in medicine or that its medicinal use is irrational, but he thinks that careful observation has led to a gradual restriction of its use so that the quantity given per capita is less than one-half that employed twenty years ago and that it will be still further reduced.

Elbow Fractures In Children.

Cotton (Annals of Surgery, March, 1902) summarizes a paper in the following propositions: 1. The usual classification hardly expresses the conditions of lesion as they actually exist. 2. The lesions frequently met with are (a) external condylar fractures; (b) supracondylar fractures; (c) epitrochlear separations; (d) separations of the whole epiphysis in the above order of frequency. 3. These forms have well marked special forms of deformity associated with them. (a) External condylar fractures frequently show the described "spur" formation with or without displacement of the condyle itself; (b) Supracondylar fractures frequently show gunstock deformity as well as backwark displacement of the lower fragment; (c) Epitrochlear separations show displacement of the fragment down and forward. 4. As to loss of motion; (b and d) Supracondylar fractures and separations of the epiphysis may show a loss of motion due to bony displacement, usually a loss of flexion from backward displacement. (c) Epitrochlear separation may show a loss of extension apparently due to muscular shortening. 5. Ankylosis or extreme loss of motion is rare in children, is practically independent of massage or passive motion, is due to displacement of fragments and their union in displaced position. 6. Position in treatment is important and only as it affects reduction and retention. 7. Treatment is to be varied to fit the lesion and displacement found, as indicated above.

Hypnotics: Their Use and Abuse.

A. W. Rogers (Journal of the American Medical Association, April 5, 1902) says that an occasional placebo is a helpful substitute. We are under the necessity of studying each individual case separately. One hypnotic will not be the best in every case. In paraldehyde we have a hypnotic speedy in its action, producing quite natural and refreshing sleep and accompanied by but few and slight after-effects. In fact, its only disadvantage lies in its disagreeable odor and taste, and the odor left on the breath. It will be taken quite readily when mixed with coffee, aromatic elixir, or made into an elixir according to the pharmacopeia. Trional is less prompt than paraldehyde, but produces a more prolonged sleep, is best given in hot milk after retiring. It is often of advantage to give small doses of sulphonal during the latter part of the day, and twelve grains of trional at bed-time. In doing this we usually secure for our patient six to eight hours' good sleep. Sulphonal is very slow in producing sleep and very prolonged in its effects. It is best given in five-grain doses, two hours apart, through the day, until twenty, and in exceptional cases thirty, grains have been taken. We can expect the patient to sleep that night and be drowsy the following day. In some cases

depressing effects may be evident two and even four days after such dosage. Sulphonal is best usee in cases of pronounced mental and motor excitement.

Membranous Colitis.

Foster (Edinburgh Medical Journal, Feb., 1902) uses this name where membranes or complete casts of the bowel are at varying times passed per annum. The main features of the disease are, the passage of mucus in the form of glairy fluid, shreds or membrane, irregularity of the bowels, and abdominal pains of greater or less intensity and frequency. Most of the patients suffer from neurasthenia. There may be slight fever in each attack. In treatment, the first aim should be the treatment of the neurasthenia, by exercise and rest, plain and digestible diet, and regulation of the bowels. For the intestinal pains, bael, in drachm doses of the confection opium, during the attacks only, perhaps aromatic sulphuric acid in 20 m. to ½ dr, doses. Many patients derive great benefit from a course of treatment at the Baths of Plombiers in the Vosges; the value of the waters probably consisting more in the method of employment than in their chemical composition. Warm water baths,ascending douches, and warm abdominal douches while the patient is under water, are the main points in the treatment. In more hopeless cases a right-sided colotomy may have to be performed.

Operative Interference in Spinal Fracture.

G. L. Walton (Boston Med. and Surg. Jour., March 6, 1902) concludes an article as follows: 1. There are no symptoms establish (otherwise than through their persistence) irremediable crush of the cord. 2. While total relaxed paralysis, anesthesia of abrupt demarcation, total loss of reflexes, retention, priapism and tympaities, if persistent, point to complete and incurable transverse lesion, the onset of such symptoms does not preclude a certain degree of restoration of function. 3. The prognosis without operation is grave. 4. While the results of operation are not brilliant, they are sufficiently encouraging to warrant one in making the practice more general. 4. In most cases it will be wise to operate within a few days of the injury; but a delay of some hours is advisable, partly on account of shock and partly to eliminate the diagnosis of simple distortion. 6. There is no infallible guide as to the extent of the lesion. The operation, at the worst, does not materially endanger life nor affect unfavorably the course of the case, and may, at least, reveal the lesion and lessen the pain; it may sometimes save a patient from death or invalidism of the most distressing character. Instead of selecting the occasional case for operation, one should rather select the occasional case in which it is contraindicated (the patient with great displacement of the vertebræ, the patient with high and rising temperature, the patient plainly moribund, the patient still under profound shock), 7, The dura should be opened freely; it need not be sutured; drainage is not necessary.

Deformities Resulting from Fractures.

J. J. Clarke (Medical Press and Circular, Feb. 26, 1902) gives them under the following heads: 1. Physical impression. Just as in minor wounds one naturally protects and guards the extremities without just reason or cause, after major injuries patients are apt to continue to nurse their disability, even though the lesion may have vanished. 2. Fibrous adhesions. These are the result of the organization of blood clots either among muscle or within a joint in the neighborhood of a fracture; they constitute the primary indications for early massage and early passive movements. Massage helps by the relief of pain and spasm. Bivalve splints are of the utmost importance to enable the introduction of such treatment. 3. Muscular contractures. These are due to prolonged maintenance of incorrect postures. Their cure is often effected by massage and passive movements, but in some cases tenotomy may be required. 4. Angular deformity from faulty union. There is less excuse for this condition than formerly existed, because a radiograph taken through the splints will always clear up any doubts in the surgeon's mind as to juxtaposition of fragments. Although many devices have been produced for mechanically holding the bones in place, there is probably nothing better than stout silver wire, annealed by being passed through a flame and allowed to cool slowly. Osteoclasis or osteotomy may be called for and these are almost invariably singularly free from subsequent pain. 5. Shortening from overlapping of fragments. Illustrative cases of any success in treatment of this class of deformity will be of unusual interest. Here extenive myotomies, fasciotomies and tenotomies may be necessary. 6. Pseudo-arthrosis. There is nothing new regarding the treatment of this type. 7. Exuberant callus. This is most commonly found in fracture of the radius above the attachment of the pronator radii teres. Gighli's wire saw is in many cases the best instrument. 8. Separated epiphysis. As this occurs frequently in young children the Roentgen rays are of little help, no image of the cartilaginous epiphyses being

given in the radiograph. It is better, if possible, to avoid wiring in these cases, owing to the fact that the foreign body in the bone often interferes with future growth; furthermore, the softness of the bone renders such ligation very difficult. 9. Fractures in the neighborhood of joint. These are frequently complicated by dislocation and in case the ordinary means fail, we should certainly follow the advice of McBurney in wiring the fragments. 10. Fractures involving joints. The two most common are fracture of patella and of the acromion; although the technic of these operations is not difficult, they should not be undertaken without a certain regard to the the constitution or condition of the individual case. In gouty individuals there is some form of rarefying ostetitis which often interferes seriously with success; furthermore, these cases do not take an anesthetic kindly. In operating upon the elbow it is convenient to open the joint from behind by chiseling through the base of the olecranon. This gives a particularly good view of the radial head and is the operation to be recommended for its removal; the olecranon is subsequently wired back in place. 11. Ischemic contracture. This troublesome deformity may exist alone or may complicate other deformities. It is commonest after fractures of the humerus. In the absence of other elements it can be alleviated by tendon elongation of all the flexor tendons above the wrist. This, however, is a difficult procedure and should never be undertaken until every other form of treatment has been exhausted. If an attempt be made to remedy the deformity by removing parts of the radius and ulna an united fracture is the result.

Present Status of Light Therapy.

S. Bang (Indian Medical Record, March 12, 1902) says that photobiological researches have established the following facts: 1. The violet and ultra-violet rays produce a specific inflammation of the skin which is different from all other cutaneous inflammations. 2. These rays stimulate the body as a whole, chiefly acting in a reflex manner. 3. These rays possess strong bactericidal power. Much has recently been written in regard to the satisfactory results obtained in the treatment of constitutional diseases by light. Astonishing results have apparently been obtained in this manner in the treatment of pulmonary tuberculosis, syphilis, arthritis, diabetes, and a number of other diseases. In most of the cases of such conditions hitherto reported as treated by light, other therapeutic measures and various climatic influences have been brought into play. For this reason it is at present impossible to say exactly what value light therapy possesses when employed in constitutional pathological conditions. That some benefit is to be derived therefrom seems certain, but that in the future it is to work miracles in these diseases is not to be believed. At present it is in local cutaneous and tissue affections that the benefit of light therapy is the most satisfactorily observed. It possesses a specific influence over lupus vulgaris. Of 640 cases of this disease so treated by Bang, 456 were entirely cured. No recurrence has taken place in 130 of these, although from one to five years have elapsed since their recovery. In only eleven cases was it necessary to discontinue the treatment on acccount of unfavorable signs. Cases of lupus erythematosus, alopecia areata, acne vulgaris, and nævus vascularis have also been treated by this method with good results. The efficiency of light in the treament of disease is very largely dependent upon the so-called chemical rays of the spectrum. In the majority of cases the heat rays are directly injurious. For this reason all apparatus for the therapeutical administration of light should be so constructed that a maximum number of chemical rays and a minimum amount of heat rays reach the patient. In most apparatus now in use the heat rays are not sufficiently excluded. Bang has devised a mechanism which seems to fulfill all the necessary requirements. By its use he obtains in five minutes, with eight amperes and 40 volts, a light reaction of equal intensity to that produced by other forms of apparatus with 60 to 70 amperes and 55 volts in 1¼ hours. The bactericidal power of the light thus obtained is exceedingly great, far exceeding that produced by any other so-called "light-machine."

A New Classification of Tumors.

C. P. White (Lancet, February 15, 1902) suggests the following classification of tumors: (A) Organomata or organ tumors; teratoma (dermoid cyst). (B) Histiomata or tissue tumors: [*a*] Connective tissue tumors (desmonata); fibrous tissue, fibroma; fat, lipoma; mucous tissue, myxoma; notochordal tissue, chordoma (of Ribbert); cartilage, chondroma; bone, osteoma; and neuroglia, glioma. [*b*] Lymphoid tissue tumors (lymphomata); lymphadenoid tissue, lymphadenoma (lymphomata); and bone-marrow, myeloma. [*c*] Muscle tumors (myomata) smooth muscle, leiomyoma; and striated muscle, rhabdomyoma. [*d*] Nerve-tissue, myelinic neuroma. [*e*] Epithelial tissue tumors (epitheliomata); squamous papilloma; columnar epithelium, adenoma and columnar papilloma spheroidol epithlium, spheroidal adenoma; and en-

dothelium, angioma and endothelial papillama. (C) Cytomata of cell tumors: [a] Tumors of indifferent cells (blastomata). [b] Tumors of connective tissue cells, also of lymphoid tissue cells and muscle cells (sarcomata); [1] pure sarcomata; round cells, round-celled sarcoma; spindle cells, spindled-celled sarcoma; and giant cells, giant-celled sarcoma; [2] compound sarcomata; fibrous tissue cells, fibrosarcoma; cartilage cells, chondrosarcoma, etc. [c] Tumors of ephitheial cells (carcinomata); squamous cells, squamous carcinoma; columnar cells, columnar carcinoma; spheroidal cells, spheroidal carcinoma; and endothelial cells, endothelial carcinoma. From the above scheme a definition is deducible, namely, a tumor is a mass of cells, tissues, or organs resembling those normally present in the body, but arranged atypically, growing at the expense of the body without at the same time subserving any useful purpose therein. It will be seen that the distinguishing peculiarity of tumors is, therefore, that they are atypical, not in structure, but in the arrangement of their component parts. Tumors are as above, thus classified by analytical methods. The opposite process of synthesis should be tried. First, there are progressive hypertrophies of organs resembling tumors. Examples are in the prostate, breast, spleen, thyroid gland, bones, and possibly the lymphatic glands. Secondly, there are certain cases in which the whole of one tissue, usually the connective tissue, hypertrophies. Examples are the progressive fibrosis of nerves, prostate, liver, etc. Again there are cases of progressive hyperergia or progressive increase of function. Examples are the kidneys, in diabetes insipidus, in the leucocyte-forming organs, in leucocythemia, perhaps also in the thyroid gland, in Graves' disease, and in many nervous diseases. Fourth, there are cases of progressive metaplasia, as, for example, in myositis ossificans. All these processes resemble more or less tumor formation. Bearing in mind the foregoing fact, is it possible to draw the following conclusions quite definitely. Every kind of tissue in the body has its represensative tissue tumor. Every kind of cell with the exception of nerve cells has its representative cell tumor. Cell tumors of nerve cells have not yet been described, but muscle-cells are represented by myosarcoma, carilage cells by chondrosarcoma, and the different kind of epithelial cells by the diffrerent kinds of carcinoma. Tumor formation is not an isolated process, but must be considered in its relation with other closely allied processes.

The Surgical Use of Subcutaneous Injections of Carbo-Hydrates in Exhausting Diseases.

Authur E. Baker (British Medical Journal, March 29, 1902) says that all surgeons who have frequently to operate upon patients in a condition of great exhaustion, to whom subsequently it is necessary for a time to deny food in any considerable amonnt, some means of supplying their systems with materials which shall in some measure, at all events make up to them for their hourly tissue waste must have often suggested itself as a serious desideratum. To some extent this waste may be replaced by rectal injections of fluid and peptonized foods. But this is a slow and imperfect method and only too frequently leads to the bowel, with rejection of the foods employed.

For many years some of have sought help in these cases from copious subcutaeous injections of normal saline solutions, and have had the best results from the practice in most cases. But I now dersire briefly to draw attention to a method of incroducing compound into the circulation which may be looked upon the light of foods, and not merely an innocuous addition to the blood of the water which is so rapidly lost by the lungs, skin, and kidneys, and sometimes by the intestine or by vomiting.

This is the addition to our normal saline solution of pure glucose. I learnt this from Professor K. Lennander, of Upsala, when he was my guest the year before last on the occasion of his receiving the Hon. F.R.C.S, of England. Since then I have constantly used it both at University, College, Hospital and in private with much satisfactio. I confess that when I began to do so I had certain misgivings on at least two points. In the first place I found that the introduction of so much glucose into the circulation and the tissues generally might possibly have the same injurious effects on the reparative processes in the latter which we see in diabetes. And though I was assured by my informant that in his large exderience no ill-results had followed, it was not until I had employed it in several cases and seen my wounds heal in the most persect manner, and until I had watched the urine of these patients and seen that no sugar was excreted in any, that I was reassured.

Another point seemed to me to demand careful consideration, namely, the osmotic effects of a saccharine solutiod on the parts into which it is injected. It is well known that even sterile and otherwise innocuouc fluids, if injected subcutaneously above or below a certain concentration, produce in the first place intense pain through their

effects on the sentient nerves; and, secondly, in concentration rapidly withdraw water from the living tissues by omosis, and so lead to extensive necrosis, as in the case of a solution of 5 per cent. of sodium carbonate. Now if a solution of sugar had either of these effects it would be clearly inadmissible. The strength given to me by Professor Lennander was 5 per cent. of glucose added to normal saline solution= 0.6 per cent. It struck me in thinking over the matter that if 6 per 1,000 of Na. Cl. was "indifferent" to the tissues of 5 per 100 of glucose might not be so. But on referring to tables giving the freezing points of various solutions as determined by Beckmann's apparatus, I found that a 5 per cent. solution of sugar freezes at the same point as the serum of the blood and as normal saline solution, and, in the terms of the botanical physiologists who first investigated these phenomena, was "isotonic" or "isosmotic" with the latter. It ought therefore to be "indifferent" to the tissues, and this proved to be the case on employing it subcutaneously; no reaction or pain has followed.

This whole question of "isotonic" or "isosmotic" fluids in relation to human tissues is an interesting one, and should always be borne in mind in injecting subcutaneously. But it is only necessarily here to remmber that fluids (exclusive of corrosives) of the same freezing point as serum are "isotonic," and produce neither pain nor other change in the tissues into which they are injected.

Reassured on this doint I have largely employed this soccharo-saline solution both in preparing exhausted patients for operation, and in supporting the during and after the latter. The only point remaining to be ascertained is the amount of glucose which may be introduced into the body at one time.

So far, I have limited myself to 25 grams in twenty-four hours as advised, equal to a litre of 5 per cent. solution, and have never seen any sugar in the urine. The mode of its employment has been simple. An ordinary aspirator needle of about 1 mm. in transverse section of its lumen attached to 5ft. of rubber tubing, and with a funnel at the other end, is all that is necessary. This apparatus is, of course, carefully sterilized by boiling, and is filled with the sterilized and warmed saccharo-saline fluid; the needle is introduced under the sterilized skin of the arm near the axilla, and the fuhnel is raised 2ft., when the transfusion is found to proceed eaisly as a rule, until the whole half litre is seen to distend the subcutaneous tissues of the arm and axilla. In preparing, say, f or a gastro-enterostomy in an exhausted patient, I do this with 500 c.cm., morning and evening if possible, for some days before and up to the time of operation; and on the table again another 500 is injected. Possibly more might be used, but for the present I have been using only the half litre at a time. Again, for days after, while the stomach only receives a limited amount of food and fluid, the same course is pursued. The effect of this treatment has been uniformly good as regares pulse, general strength, and relief of thirst.

This is another effect which I think ought to be taken into account in septic cases; for example, appendicitis with septic peritonitis. This is the increased secretion of urine, which is rendered possible by the free use of saline injections. We believe that some, if not all, of the toxins in such cases, are eliminated from the system by the kidneys. If this is so the presence of abundance of water in the body ought to render the work of the kidneys easier. The toxins would be excreted and in greater dilution. The saving to the kidneys in eliminating dilute poisons rather tha concentrated ought to be great, and we ought to see less of renal complications. In a case of very extensive peritonitis following on gangrenous epityphlitis I recently gave subcutaneously half a litre of the fluid mentioned above morning and evening for a fortnight, with, I believe, good results in many ways.

But in he preliminary treatment, the opeaation, and after-treatment of exhausted patients, the use of the saccharo-saline subcutaneous infusion is beyond doubt of great value, and ought to be more widely known and practiced. A concentrated solution is now made for me sealed up in glass capsules, which can be diluted to the proper strength in a moment with the corresponding amount of boiled water. Such capsules can be carried about for every serious operation, and will, I believe, in the future be found of much use.

The Surgical Uses of the Hairpin.

J. Torrance Rugh (American Medicine, April 5, 1902,) has found about eleven varieties and he classifies their uses under three headings: 1. When used in its natural shape; 2. When straightened; 3. When bent or twisted into various shapes. Under the first class he mentions the following uses: 1. To hold the hair away from the shoulders or neck during an operation; 2. To pin on dressings or bandages; 3. To remove concretions or foreign bodies from any sinus, canal or opening; 4. As a dull curet; 5. As an esthesiometer; 6. To catheterize a female. This is easily done

by inserting the rounded end through the uretha; 7. To run under a blood-vessel, when compression is to be made to arrest hemorrhage; 8. To close a wound; 9 As a calipers or compass. When straightened it may be used: 1. As a probe; 2. As an applicator; 3. To wire the bones together in rections or fractures; 4, To rupture the membranes in labor; 5. Heated to cauterize parts; 6. As a hairlip pin; 7. To sound a child for stone in the bladder; 8. As a hook to extract foreign bodies from canals and sinuses; 9. As a tenaculum. When bent or twisted, it may be used: 1. As a nasal speculum; 2. As a retractor; 3. As an aneurysmal needle; 4. In lieu of a tracheotomy tube; 5. As a drainage tube; 6; To approximate the edge of the wound.

Hypertrophy of the Prostate Gland.

Murphy (Journal of the American Medical Association, March 29, 1902) reaches the following conclusions: 1. From the clinical reports and experience, it seems evident that in extreme cases prostatotomy is the operation of election. 2. It appears evident that in the hands of safe, far-seeing informed practitioners, few cases will now be allowed to progress to this extreme condition before radical means are resorted to for permanent relief. The practice of to-day should be timely practice. 3. Continued use of the cathether is a menace to life, not to mention its discomfort, no matter how favorable the conditions for its performance. The patients all, sooner or later, suffer from cystitis and sequelæ. 4. Prostatectomy gives the best permanent result, and is fraught with very little more danger than prostatotomy. 5. Suprapublic prostatectomy should be limited to exceptional cases of enormous intravesical enlargements of the prostate. It appears to us to endanger the sphincteric control more than the perineal operation. It is more sanguinary and the work is more difficult and distant from the operator. 6. The perineal is the most direct and least bloody route. It admits of a very large opening, and permits the prostate to be drawn quite into the open before it is attacked. It gives the greatest security against injury to the bladder wall and least liability to disturbance of the internal sphincter. It endangers the rectum least and affords the best drainage 7. It can be best performed through a Y-shaped incision, with a Sinus speculum for a posterior retractor. The prostate is drawn out easily with sharp hook retractors, and best seperated from the bladder from behind forward. The operation should never be performed in the dark, *i. e.*, through a small incision. 8. It should always be intracapsular enucleation en masse, allowing the anterior isthmus to remain. The hemostasis may be secured with forceps or a packing of subiodide of bismuth (not iodoform) gauze: The permanent catheter should not be introduced until the perineal drain is removed. 9. The patient should be kept in a semisitting position for seventy-two hours after the operation, and should be out of bed by the fifth day. He should drink large quantities of water from the onset. 10. Anesthetic is *sub judice*. Phosphate of sodium should be administered to keep the urine acid; and urotropine as an antiseptic. The personal equation must never be lost sight of in operating these cases, attention to every small detail of the patient's general condition is necessary for the best results.

Localized Angiosclerotic Gangrene.

T. B. Barringer (Medical Record, March 1, 1902), reports the case of a woman thirty-eight years old, whose habits were excellent and in whom there was absolutely no history of syphilis. The first symptoms experienced were slight neuralgic pains in the arm later followed by a sensation, as if the finger-tips had been burned. An attack of influenza of moderate degree occurred soon afterward and the pain in the fourth and fifth fingers of the right hand very rapidly became worse. The fingers were swollen and slightly reddened, and on the palmar surface of the last phalanges of the fourth and fifth fingers were several purplish, extremely tender spots. These spots became areas of dry gangrene and as soon as a line of demarcation was formed the terminal phalanges were removed. The pain was intense and the only local applications giving relief were ice-cold weak solutions of carbolic acid. Potassium iodide in small doses was given and hot dry sand bath were applied locally. There was improvement for several months and then there was a return affecting also the ulnar aspect of the hand, which was soon removed. Large doses of potassium iodide were then given, combined with the protiodide of mercury, and in a few days the pain abated. A slight recurrence of pain was relieved by the application of bandages saturated in 95 per cent. alcohol to the hand and forearm. During the past four months no recurrences have appeared and the part of the hand remaining has resumed a normal condition. A microscopal examination of the amputated parts showed an advanced panarteritis, with complete occlusion of the large vessels and advanced chronic productive interstitial neuritis. There was an extensive infiltration of the

tissues by smoll round cells found especially around the blood-vessels and nerves, "strangely resembling in places specific disease." So far as could be made out, the process was entirely localized, for even the radial and ulnar arteries have been perfectly soft and the pulse has had no tension. It is known that influenza is frequently followed by areas of gangrene, but the involvement of the vessel-walls and the extensive neuritis, both unusual in ordinary persenile gangrene, together with the exceilent results following the use use of potassium iodide and mercury, certoinly point to a specific origin. The daily use of the applications of alcohol, as suggested by Bucher, seem to have had a decided effect, for the blood pressure was raised from 101 to 108 or 110 millimeters.

Osteopathy in Virginia.

We take the following from the Virginia Medical Monthly. It may be of some value to some of us in North Carolina to know the legal decisions in our neighbor State. The Journal says:

Last year Drs. J. E. Warinner, Brook Hill, Va., for the Medical Examining Board of Virginia, and Landon B. Edwards arraigned some "doctors of osteopathy" before the Hustings Court of Richmond for violation of the medical practice laws of Virginia. The charge was that they were practicing medicine in this city without having the certificate of examination of the Medical Examining Board of Virginia. They affix the title "D. O." to their names, and are graduates of a "college of osteopathy." Their claim was that they used neither drugs nor instruments in their treatment of diseases; hence were not practicing medicine or surgery in the legal meaning of the term, although they charge fees or rewards for their services, and claim to have effected cures of the sick. They recognized the necessity of a knowledge of anatomy, physiology, etiology, symptomatology, pathology, the principles of diagnosis of diseases, etc., but excluded themselves from the legal category of practitioners of medicine because they adopt other modes of treatment than the use of drugs or instruments! And yet these people were not charged professional license taxes—State or city! Judge Witt dismissed the case, as he said there was no statute under which they could be tried.

Later on, another case came up in the Halifax County (?) Court—Judge Barksdale presiding. Judgment was rendered in effect similar to that of Judge Witt.

Dumfounded by these judicial decisions, the Legislative Committees of the Medical Society of Virginia and of the Medical Examining Board of Virginia, under legal advice, formulated an amendment to the present law so as to cover all possible cases. The law had stood the test of every known case of quackery until the outrageous instances referred to.

Senator E. J. Harvey, Stuart, Va., introduced the amendment in the Senate, and it was referred to the committee of which Senator Barksdale is chairman. The "osteopaths" introduced a counter bill before the committee asking for an examining board of osteopaths.

Dr. R. S. Martin, Stuart, Va., president of the Medical Society of Virginia, and secretary of the Medical Examining Board of Virginia, read an exhaustive paper before the committee, embodying the views of the profession of medicine in favor of the amendment proposed by Senator Harvey. Drs. H. M. Taylor, George Ben Johnston, John N. Upshur, Stuart McGuire, and others of the profession of Richmond, all expressed themselves strongly in favor of the amendment—requiring "osteopaths" and all other "pathies," etc., to be examined by the Medical Examining Board of Virginia before professionally attending the sick or injured for fee or reward. Indeed, in our opinion, Dr. Johnston, in his apparent earnest plea for the proposed amendment, conceded too much with reference to consultations with irregulars who had the certificate of the Examiners.

The "osteopaths" were represented by legal counsel, and an imported "doctor of osteopathy." They claimed that osteopaths are not practitioners of medicine because they do not use drugs nor resort to surgery. They have to be graduates of a school or "college of osteopathy," in which anatomy, physiology, diagnosis, treatment of disease according to their peculiar methods, etc., etc., are taught. In the audience before the committee were a number of persons whose different diseases were promptly diagnosed and treated by their methods, who had come to testify to the curative value of their modes of treatment.

One of these parties stated that at one time he was very sick, that reputable doctors—both regulars and homeopaths—prescribed for him, and he got no better. Then he put himself under the treatment of osteopaths, who at once put their hands on the spot, and whereas he was sick, now he is well. He believed in osteopathy, and therefore "doctors of osteopathy" should not be required to pass examinations before the Medical Examining Board.

But the astounding (?) testimony of the above witness and of Major N. V. Randolph (which was very much like it) is not

to the point. Such testimonials can be found attached to the vilest quackery and most dangerous patent medicines advertised in the daily newspapers. Both witnesses acknowleged they did not know in what "osteopathy" consisted. Such witnesses, of course, were introduced to muddle and mystify the main point at issue, which is not: Are "osteopaths" doctors of medicine? But it is: Are these men seeking to practice a profession for the cure of diseases—therefore presumably medical in the usual acceptation of the term—*for fee or reward?* If so, they should be placed in the same category with others offering professional services to the public which involve the health and life of persons under their charge. They should be required to stand examination before the Medical Examining Board of Virginia on all important branches involved in a knowledge of medicine, to which Board, if they wish, one familiar with the special treatments of osteopathy may be attached—just as is arranged for the benefit of homeopaths. The testimonials of the witnesses produced—ignorant alike of the laws of health and of the essential branches of the practice of medicine—do not give sufficient endorsement of the attainments of these "osteopaths" and other quacks to exempt them from the provisions of a proper law on the subject.

The regular profession opposed separate boards of examiners, as the Board does now, with reference to "osteopaths," or any other "pathy."

In justice to the homeopaths of the State, who are in accord with the regular profession in reference to "osteopaths" and other "pathies," it may be said that the few graduates of homeopathic schools who have appeared before the Board have stood, in general, very creditable examinations. Although the Board is composed of twelve practitioners of the regular school and two of the homeopathic, we have never heard of a case where injustice was done or unfairness of examination exercised toward any one because of his or her choice of school of practice.

No law exists in Virginia, nor is one in anticipation, which restrains a party having the certificate of the Board from practicing any "pathy" that he pleases. But for humanity's sake, and for the sake of advancement in education, compel whoever undertakes to treat disease for fee or reward to be tested as to his knowledge of the human body in health or disease before he is permitted to trifle with the ailments that flesh is heir to. No other "specialty in practice" that we know of is exempt from the provisions of the law. Why exempt osteopaths? If osteopaths are exempt, why compel every other doctor in the State to submit themselves to the Medical Examining Board? If osteopaths can practice their specialty without professional license or tax—city, county or State—where is justice in the law which taxes regulars, homeopaths, etc., in the cities from $50 to $75 a year?

Neither regular nor homeopathic doctors have opposed the practice of "osteopathy," or "eclecticism," or "allopathy," or "electrology," or "hydrotherapy," or "faith cure," or any other special practice that proves successful in the treatment of human diseases. But he is no less than a criminal charlatan or a fool that denies the value of vaccination, or of diphtheria antitoxin, or who would undertake to treat recurrent appendicitis by means of massage alone, with a claim of 95 to 100 per cent. of recoveries!

The Senate Committee, with the dissenting vote of Senator Harvey, as we understand it, declined to report favorably the amendment proposed by the State Board of Medical Examiners, or any modification thereof, but favored a separate board of osteopaths. The committee, however, at a subsequent meeting, recognizing that their action met with the disapproval of their constituents, recinded their action of the previous week, and practically left it to the doctors to formulate their own amendment.

The Richmond Academy of Medicine and Surgery (Dr. Lewis C. Bosher, president) the (Richmond) Church Hill Medical Society (Dr. R. D. Garcin, president), by unanimous votes approved the action of the Legislative Committees of the Medical Society of Virginia. Doctors—able representatives of the profession—from Newport News, Portsmouth, Williamsburg, Sussex, Charlotte, Frederickburg, Charlottesville, Petersburg, Lynchburg, Tazewell, etc., all huried to this city to interview their legislative representatives to see what was the matter, and to urge the adoption of the measure which would require osteopaths to pass the Medical Examining Board. The homeopaths of the city were also favorable.

A modification of a clause in the Indiana law, which apparently covers all cases of persons proposing to practice the healing art in Virginia was unanimously approved by the doctors' committee, and all other doctors to whom it was referred. The doctors who had come to the city had interviewed their Senators and everything seemed favorable for their vote at 1 o'clock March 19th—the special hour appointed for consideration of the bill. The doctors who had come to the city for the most part returned to their

homes on the 18th instant—confident of victory as the result of their efforts.

About mid-day of March 19th, those interested in the measure began to assemble in the Senate, then in session, in anticipation of the special order at 1 o'clock. Then, as a thunderbolt from a clear sky, it became known to the doctors that a prominent member of the local profession, without authorization from the committee of doctors, or without notice to them, had interviewed some of the Senators, asking them to favor recommitment of the bill. Senators, friendly to the bill, had heard that the bill would be recommitted by request of the doctors, and did not understand why it should be further considered. When pressed by a number of doctors to explain his reasons for so doing, he stated thet he did not understand the bill to be presented. When the amendment proposed was shown him—practically an extract from the Indiana law, which is even more sweeping than the original amendment, he expressed approval, and said he would at once—now only a few minutes to 1 o'clock—see the Senators to whom he had spoken, who were in their seats, and withdraw his request to recommit. But it was too late to overcome the general influence his requests had exerted, and the vote to recommit was carried. So that the "doctors' bill" sleeps the sleep of all such recommitted bills so near the end of the legislative session.

Of course, "killing the bill" for this session leaves "osteopaths," and the like, free for another year, at least, to practice without examination, license or tax.

Results of Operation for Varicose Veins.

Dr. Blake (Medical and Surgical Reports of the Boston City Hospital) comes to the following conclusions:

1. Operation for radical cure of varicose veins by dissection is not successful in every case.

2. To obtain successful results cases must be selected, and certain conditions avoided and recommended to palliative treatment.

3. The conditions which will probably militate fatally against satisfactory results are: (a) Old age, or an extremely debilitated condition; (b) excessive and very extensive varicosity; (c) occupations which to an extraordinary degree favor the development of varicose veins.

4. Cases which may be cured by a thorough and careful operation are: (a) Local varix, even of marked prominence, particularly if thrombosis has occurred either in thigh or lower leg; (b) extensive varix, limited to a single venous stem; (c) varicosities which are a bar to passing civil service, military, or naval examinations; (d) cases in youth and middle life; (e) cases in which the development of permanent varicosity was at least partially due to more or less removable conditions (flat-foot, garters, etc.)

5. Operation, even if not entirely successful, will usually relieve such complications as thrombosis, hemorrhage, and ulceration.

6. The usual conditions which follow unsuccessful operation are: (a) Pain in and around the scar; (b) general swelling and tenderness of the leg; (c) development of varicosities above or below the operation scar, but not at the site of the operation itself.

7. In all operated cases general systemic treatment should be prescribed, together with exercise and the avoidance of a continued upright position whenever possible.

8. Cure of symptoms does not necessarily mean the removal of all visible varicosities.

Comparison of relative methods of multiple ligation and continuous dissection must be based upon a larger number of cases than are here recorded.

Superficial Burns.

Rectus recommends the following ointment:

℞ Iodoformi, gr. 7½–15.
Antipyrini.
Acidi borici, aa gr. 75.
Vaselini, gr. 600.
M.

Wertheimer applies to burns, especially in children, the following liniment:

℞ Thymol, gr. 1½–2.
Aq. calcis.
Ol. lini, aa gr. 1,500.
M.

A New Theory of Uraemia.

According to the Medical Press and Circular the pathology of the condition to which *en bloc* the term uræmia is applied, remains very obscure in spite of numerous hypotheses and speculations based on the rusults of necessarily more or less limited and imperfect researches. Uræmia is generally assumed to be the organic manifestation of functional failure on the part of the kidney, in other words, a disease consequent upon, and directly due to, defective elimination. Nevertheless, physiologists and pathologists are by no means agreed as to the nature and significance of the body or bodies alleged to be retained; indeed, the assumption does not reach higher than mere surmise. It may be conceded that renal insufficiency is the prime factor in the production of the symptoms collectively described as uræmia, but it must not be

forgotten that renal inadequacy may apply to and explain two very different forms of functional disturbance. The trend of modern research has been to confirm Brown-Sequard's contention in favour of all organs possessing an internal secretion, even in respect of so distinctly an excretory organ as the kidney. The possibility therefore suggests itself that inadequacy of the internal secretion of the kidney may in whole or in part explain the symptomatology of this affection. In support of the existence of an internal renal secretion, Rose Bradford instanced the curious fact that partial removal of the kidney in animals does not necessarily cause any marked modification in the quantity and quality of the urine, yet, in spite of the normal excretion of urea, a marked increase is noted in the proportion of nitrogenous extractives contained in the muscles, from which he infers that the diminution in the quantity of internal renal secretion favours exaggerated disintegration of the muscle substance and perhaps of other tissues. In another direction it has been shown that the injection of dilute solutions of renal substance markedly prolongs life in artificially induced uræmia, and the same effect is produced by the injection of normal blood, and especially of blood from the renal vein. These experiments would appear to justify the assumption that the kidney elaborates and passes into the blood some substance which acts as an antitoxin to some other substance or substances as yet unidentified, the harmful effects of the latter being due to their stimulating effects on tissue metabolism, e.g., waste. The data at our command are not yet sufficiently precise to enable any practical scheme of treating uræmia on these lines to be formulated, but it is well within the scope of possibility that means may be found of averting this, the outcome of renal inadequacy, in the same way and on the same principles as in the treatment of myxœdema, by the methodical administration of thyroid substance.

The Best Method of Administering Quinine as a Preventive of Malarial Fever.

E. H. Read (Journal of Tropical Medicine, Jan. 15, 1902) believes that the best way of giving quinine as a prophylactic is the following: 1. For male adults in good health, tablets in 15-grain doses every fifth day; for those in poor health, the solution used in the same way, or 15-grain powder in a tablespoonful of porridge or milk. 2. For female adults, 8 grains should be given instead of 15; pregnant women may take 2½ grains daily, in either of the above ways, from the beginning of pregnancy. 3. Children of either sex under one year, ½ grain of the powder every third day in a spoonful of milk, followed by a spoonful of jam or honey; those from one to five years, 1 grain every third day; from five to ten years, 2 grains every third day; from ten to fifteen years, 3 grains; above fifteen years, the ordinary adult dose, taken in the same way.

The Treatment of Cardiac Dilatation and Asthenia.

Burney Yeo (The Practitioner) believes that the following three causes have of late years given rise to the prevailing tendency to cardiac asthenia and dilatation: 1, Influenza epidemic; 2, abuse of muscular exercises; 3, excessive use of tobacco. Sufficient stress has not been laid on the necessity of a prolonged period of physical rest during the convalescence from influenza. This is the surest of all cardiac tonics, and in early periods, when cardiac dilatation is commencing, is, when combined with good air and suitable food, the most essential remedy. "Resisted Exercises" are merely solemn trifling in many such cases, but gentle carriage exercise or gentle horse exercise is often of value. Baths are of more value in chronic cases of cardiac dilatation than are resisted exercises. The Nauheim treatment gives the best results in cases of chronic cardiac asthenia followed upon acute disease.

Nervous-Deafness.

The attention of otologists has of recent years been so rivetted on the treatment of suppurative disease of the middle ear and its dangerous sequelæ that the many non-purulent affections of the middle and internal ear interferring mainly with the natural function—that of hearing—have received comparatively little consideration. It is refreshing to note says the Medical Press and Circular that in the British Laryngological, Rhinological and Otological Association a discussion has taken place on the diagnosis and treatment of various forms of nerve-deafness, on a paper by Dr. Dundas Grant, which we hope to publish in our next issue. The auditory nerve is an extremely sensitive part of the nervous system, and it is not surprising that it should suffer, as the enumeration of the varieties of nerve-deafness plainly shows, in the course of various constitutional disturbances. We note among other forms the anæmic, congestive, hæmorrhagic, hysterical, parotitic, syphilitic, senile, "occupation," toxic, neo-marital, and neurasthenic. It is obvious that without discriminating diagnosis of the varieties the treatment of nerve-deafness as such

cannot be rationally carried out. The adjourned discussion will no doubt prove of great practical value.

Some Remarks upon Internal Derangement of the Kneejoint: Based upon 59 Cases in which Operation was Performed.

Allingham (Lancet, March 15, 1902) discusses the question generally. It is shown that there is a great variety of lesions found after a diagnosis of internal derangement and that these conditions are not confined to the semilunar cartilages. Occasionally no abnormality will be found and yet the operation will prove successful in relieving pain. An accurate diagnosis of the condition before opening the knee joint is very difficult. Stress is laid upon the great importance of early treatment in these cases, and it is said that if upon the onset of symptoms the joint is merely put at rest for a period varying from one to three weeks and if this is followed by massage, passive movements, and properly selected exercises, operation can be avoided in a large number of cases. In a certain percentage this treatment will not be successful and then operation must be resorted to. All chronic cases, too, require operation and those in which a loose body can be felt to move to widely different positions in the joint. He prefers, in operating, to make a verticle incision about three inches long, one inch to the inner side of the patella and extending to an inch below the head of the tibia. Exception, of course, to this rule is made in cases of foreign bodies which can be definitely localized. This vertical incision is better than the transverse, as it does not divide the extension of the vasti toward the tibia and because the extension upward of the incision permits of an examination of the large synovial pouch about the patella. The joint should not be washed out with antiseptics and no drainage should be employed. However, when a foreign body has evaded discovery after a careful search, sometimes irrigation of the joint with sterile water will cause the body to float out. It is thought better to remove loose semilunar cartilages than to fix them. The after treatment consists in putting the joint at rest for one week when passive motion should be begun if the wound is entirely healed, and massage can then be instituted. If in spite of this treatment the joint tends to become stiff it must be moved under an anesthetic. When the semilunar cartilage is involved there is usually a distinct history of injury; a definitely located site of pain on the inner or outer side of the knee joint; no foreign body is palpable; and no creaking in the joint can be elicited. The results generally from the operation have been satisfactory, although occasionally stiffness and pain have followed. Recurrence of the trouble after operation is extremely rare. Allingham is careful not to minimize the gravity of the operation which is held to be considerable, and repeats that failure must occasionally follow the operation.

Treatment of Gonorrhea.

Heaton (Birmingham Med. Rev., Feb., 1902) condemns the abortive treatment by means of the injection of a solution of nitrate of silver of gr. xv, or xx. to ʒi. The disease frequently fails to abort within the promised fourteen days. In fact, the gonorrhea often pursues its course unchecked, or the acute symptoms may even be accelerated and intensified. Moreover, there is risk of urethral and of periurethral abscesses, and of secondary strictures. Systematic treatment and very frequent irrigations of the anterior urethra during the early stages with mild antisedtics are also discarded as too tedious and laborious. The general treatment in acute cases is of great importance. In so far as possible, absolute physical rest should be enjoined. The patient should be kept on a reasonably low diet and fluids should be given in considerable quantity. Hot hip-baths are of great service. Both penis and scrotum are to be supported by bandages. Free exit must be given to the urethral secretions, and the glans penis must be bathed at least twice daily to keep it clean. The drug treatment is symptomatic in the early stages. The oleoresins at this stage only do harm. A brisk purge to relieve the bowels, aconite if constitutional disturbance be prominent, alkalies and hyoscyamus to soothe the mucous membrane of the urethra, will fulfil most of the requirements. When the discharge is profuse, some very mild antiseptic mixed with an anodyne is to be used as an injection to wash out the inflamed canal; one or two drams of the fluid are to be injected, without the use of any force, and to be retained for one or two minutes. As the acute stage subsides and during the whole of the stage of gleet the various oleoresins form the sheet anchor as internal medicines. Sandal-wood is the most efficacious and least likely to disturb digestion; it is best given in capsules. Cubeb is especially useful in the more chronic cases. At the same stage of the disease, which is marked by a comparative thinness of the discharge and by a decrease in ardor urinæ, the local treatment is altered. Astringent solutions are now indicated. The most

useful of these is permanganate of zinc in a strength of gr. 1-8, increased to gr. 1-2, to ʒi. The other sulphates, also protargol, are likewise valuable. The great majority of acute gonorrhea may be cured by these means within from four to five weeks. Those which persist and those which reach the practitioner after years of neglect fall into the category of chronic gleet and require an absolutely different plan of treatment. The persistence of the disease may be due either to trouble within the anterior urethra, such an unhealthy condition of its entire mucosa, or a slight stricture with ulceration behind it, or "granular patches," or to trouble posteriorly, such as inflammation or abscess of the deep lacunæ or ducts, or chronic inflammation of the prostate. The use of the cold metal bougie often exerts a marked beneficial effect upon the chronically-inflamed anterior urethra. Local patches are diagnosed by the use of the endoscope, and are treated by direct applications of strong solutions of silver nitrate, gr. xv. or xxx. to ʒi., or protargol, 5 to 20 per cent., made twice or three times weekly. If the trouble lie in the posterior urethra or in the prostate, it is very likely to prove extremely obstinate, The use of the cold metal sound, the daily use of medicated urethral bougies introduced into the deeper portion of the urethra, the installation of a few drops of some strong astringent by means of a special deep syringe,the daily use of large quantities of some mild astringent introduced under pressure—all these are measures which must be successively and patiently tried, perhaps only to fail.

MISCELLANEOUS.

The New Constitution of the American Medical Association.

Article I.—Title of the Association.

The name and title of this organization shall be The American Medical Association.

Article II.—Object of the Association.

The object of this Association shall be to federate into one compact organization the medical profession of the United States, for the purpose of fostering the growth and diffusion of medical knowledge, of promoting friendly intercourse among American physicians, of safeguarding the material interests of the medical profession, of elevating the standard of medical education, of securing the enactment and enforcement of medical laws, of enlightening and directing public opinion in regard to the broad problems of state medicine, and of representing to the world the practical accomplishments of scientific medicine.

Article III.—Composition of the Association.

Section 1.—This Association shall consist of Permanent Members, Members by Invitation, Honorary Members, Associate Members and Delegates.

Sec. 2. *Permanent Members.*—Permanent Members shall consist of such members of the State societies, together with their affiliated local societies, entitled to representation in this Association as shall make application for admission, in writing to the Treasurer, and accompany said application with a certificate of good standing signed by the president and secretary of the society of which they are members, and the annual fee.

Sec. 3. *Members by Invitation.*—Members by Invitation shall consist of distinguished physicians of foreign countries who may be invited by the officers of Sections or of the Association. They hold their connertion with this Association until the close of the annual session to which they are invited, and shall be entitled to participate in all of its affairs, as in the case of permanent members, but they shall not be assessed the annual dues.

Sec. 4. *Honorary Members.*—Honorary Members shall be physicians of foreign countries who have risen to pre-eminence in the profession of medicine.

Sec. 5. *Associate Members.*—Representative teachers and students of the allied sciences, not physicians, may become Associate Members by the vote of the House of Delegates.

Sec. 6. *Delegates.*—Delegates shall consist of such members of the affiliated state and territorial medical societies and of the medical service of the United States Army, of the United States Navy, and of the United State Marine-Hospital Service as shall be chosen in accordance with the provision of the Constitution and By-Laws of the American Medical Association.

Article IV.—House of Delegates.

Section 1.—There shall be a House of Delegates which shall consists of (1) delegates elected by the permanently organized state and territorial medical societies in affiliation with this Association; (2) delegates elected by each of the component scientific Sections of this Association; (3) one delegate each from the medical departments of the United States Army and United States Navy, and one from the United States Marine-Hospital Service.

Sec. 2. The total membership of the House of Delegates shall not exceed 150,

and the delegates representing the affiliated state and territorial medical societies be apportioned among the several affiliated state and territoral medical organizations in direct ratio to their true membership.

Article V.—Sections.

In order that its appropriate scientific work may be expeditiously and systematically performed this Association shall be divided into Sections, each of which shall be devoted to the encouragement and pursuit of knowledge in one of the recognized branches into which the science and art of medicine are for convenience divided. Few Sections may be organized from time to time as the necessity for their existence arises and when authorized by the House of Delegates.

Article VI.—Branches.

The House of Delegates shall have authority to provide for and to create such branch organizations as may be deemed essential to the promotion of the welfare of the medical profession.

Article VII.—Sessions and Meetings.

The Association shall hold an Annual Session, during which there shall be held a General Meeting, which shall be open to all registered members and delegates. The place and time for holding each Annual Session shall be determined for each next succeeding year by the House of Delegates.

Article VIII.—Officers.

Section 1.—The officers of this Association shall be President, four Vice-Presidents, a Secretary, a Treasurer, and nine Trustees.

Sec. 2.—The officers of this Association shall be elected by the House of Delegates.

Sec. 3.—Each officer, with the exception of the Secretary and the Trustees, shall hold office for one year, or until his successor is elected and installed. Three Trustees shall be elected annually by the House of Delegates for a term of three years.

Sec. 4.—No member of the House of Delegates shall be eligible to any of the offices mentioned in the foregoing sections of this article.

Article IX.—Funds and Appropriations.

Funds for meeting its current expenses and awards from year to year shall be raised by the Association by an equal assessment of not more than ten dollars annually on each of the permanent members; by voluntary contributions for specific objects; and from the profits of its publications. Funds may be appropriated by the House of Delegates in accordance with the articles of incorporation for defraying the expenses of its annual meetings; for publication; for enabling standing committees to fulfill their respective duties, conduct their correspondence, and procure materials necessary for the completion of their stated annual reports; for the encouragement of scientific investigation by prizes and awards of merit; and for defraying the expenses incidental to specific investigation.

Article X.—Referendum.

Section 1.—The General Session shall have the right to discuss questions referred to it by the House of Delegates, and it may, by a two-thirds vote, order a general referendum on any question pending before the House of Delegates.

Sec 2.—The House of Delegates shall, upon a two-thirds vote of its own members or upon a two-thirds vote of the General Meeting, submit any question, either through The Journal or by mail, to the general membership for final vote; and if the persons voting shall comprise a majority of the members, the majorlty of such votes cast shall determine the question, and this vote shall be binding upon the House of Delegates.

Article XI.—Amendments.

The House of Delegates shall have authority to amend any article of this Constitution by a three-fourths vote of all the members comprising the House of Delegates; *provided*, that such amendment shall have been proposed in open meeting of the House of Delegates one year previous to being acted upon, that it shall have been published at least three times in The Journal during the interim, and that it shall have been officially transmitted to each affiliated state and territorial society for consideration at its annual meeting.

Adopted at St. Paul, Minn., June 5, A. D., 1901.

CHAS. A. L. REED, President.
GEO. H. SIMMONS, Secretary.

BY-LAWS.

CHAPTER I.

Membership.

Section 1.—No permanent member shall take part in the proceedings of the Association, or of any of the Sections, until he has exhibited his credentials to the proper officer or committee, entered his name and address in full on the registration book, and paid his annual dues. He shall also indicate the Section to which he will officially attach himself.

Sec. 2.—Permanent members who have

complied with the foregoing regulations shall at all times be entitled to attend the General Meetings and Sections, and to participate in the affairs of the Association, so long as they continue to conform to its regulations.

Sec. 3.—No individual who shall be under sentence of expulsion or suspension from an affiilated society (whether a directly offiliated state or territorial society or an indirectly affiliated local society) of which he may have been a member. or whose name shall have been dropped from the rolls of the same, shall be received as a member or shall be allowed to continue as a member of this Association, until he shall have been relieved from said sentence or disability by such society; nor shall any person not a member of his local affiliated medical society, provided there be such a one, be eligible to membership or be allowed to continue as a member in the American Medical Association.

Sec. 4.—Members may vote for Section officers only in that Section with which, upon registration, they have declared their intention of uniting.

Sec. 5.—Any permanent member who shall fail to pay his annual dues for one year, unless absent from the county, shall be dropped from the roll of permanent members, after having been notified by the Secretary of the forfeiture of his membership.

Sec. 6.—Honorary Members may be elected by the House of Delegates on the nomination of a Section, but not more than three Honorary Members shall be elected in any year.

Sec. 7.—Honorary and Associate Members shall have all the rights of membership except those of voting and holding office. They shall not be assessed for dues, nor shall they be entitled to receive The Journal free.

Sec. 8.—The House of Delegates shall have authority to provide for membership under proper restriction from among the members of recognized medical societies of neighboring countries, *provided*, that the right of representation in the House of Delegates shall be restricted to affiliated state and territorial medical societies in the United States.

CHAPTER II.

General Meetings.

The General Meetings shall include all registered members and delegates, who shall have equal rights to participate in discussions and to vote upon pending questions. Each General Meeting shall be presided over by the President, or, in his absence or disability, by one of the Vice-Presidents. Before it there shall be delivered upon the opening day of each annual meeting, the address by the President, whose recommendations shall thereupon go to the House of Delegates for action, and on each following meeting such addresses on scientific subjects as may be assigned to orators selected for the purpose. It shall have power to create committees or commissions for scientific work of special interest or importance, and to receive reports of the same, provided that any expense incurred in connection therewith by the Association must first be authorized by concurrent action of the House of Delegates and the Board of Trustees.

CHAPTER III.

House of Delegates.

Section 1.—The House of Delegates, as far as may be consistent with the Articles of Incorporation, shall be the legislative and fiscal body of the Asssociation. Its sessions shall be open to the members of the Association, but, except upon invitation of the House of Delegates, they shall have no right to participate in its proceedings.

Sec. 2.—Each state and territorial society entitled to representation shall have the privilege of sending to the House of Delegates one delegate for every 500 of its resident regular members, and one of any additional fraction of that number; but each affiliated state and territorial society shall be entitled to at least one delegate.

Sec. 3.—The House of Delegates, once in every 3 years, shall appoint a committee of five on reapportionment, of which the President and Secretary shall be members. It shall be the duty of this committee to examine the membership lists of all the affiliated state and territorial medical societies, and to determine therefrom the number of delegates to the Association to which each state or territory shall be entitled for the ensuing three years, beginning with the annual meeting next succeeding that at which the reapportionment is approved by the House of Delegates.

Sec. 4.—Members of the House of Delegates shall be elected for a term of two years, and those state and territorial societies entitled to more than one representative are requested so to arrange such election that one-half of their delegates, as near as may be, shall be elected each year.

Sec. 5.—In order that each state and territorial medical society may properly provide for a full delegate representation at each meeting of the Association, it shall have the authority to elect alternates, who, upon presentation of the proper credentials, shall be empowered to serve as delegates in the absence of the regularly-elected dele-

gates. *Provided*, that in case of the absence of the regularly appointed delegate or alternate, the permanent members from that affiliated society, who are present at that meeting, may select one of their number who shall represent that society, and provided further, that when only one permanent member is present from any affiliated society, that member may represent that society in case he is in other respects eligible to the office of delegate.

Sec. 6.—No one shall serve as a member of the House of Delegates who has not been a permanent member of the American Medical Association for at least two years.

Sec. 7.—Every Delegate from an affiliated state or territorial society, before being permitted to take part in the proceedings of the House of Delegates, must deposit with the Secretary, or other designated officer or committee, a certificate signed by the President and Secretary of the Society from which he receives his authority, stating that he has been regularly and legally elected a Delegate to the American Medical Association for a definitely stated term; and the delegates from the Sections shall present credentials signed by the Chairman and Secretary of the Section they represent. This certificate shall be subjected to review by the Judicial Council, and all disputes as to credentials shall be investigated by the Judical Council and determined by vote of the House of Delegates.

Sec. 8.–The House of Delegates shall approve all memorials and resolutions of whatever character issued in the name of the American Medical Association before the same shall become effective.

Sec. 9.—The House of Delegates shall present a summary of its proceedings to the last General Meeting of each annual session of the Association, or it shall publish the same in a bulletin to be issued each day during the annual session.

Sec. 10.—A majority of the members composing the House of Delegates shall constitute a quorum for the transaction of business.

CHAPTER IV.

Election and Installation of Officers.

Section 1.—All elections shall be by ballot.

Sec. 2.—The election of officers shall be the first order of business of the House of Delegates after the reading of the minutes on the morning of the last day of the annual session. Only those in attendance at the annual session at which the election occurs shall be eligible for election.

Sec. 3.—The officers elected at each annual session of the Association shall be installed at the closing General Meeting.

CHAPTER V.

Duties of Officers.

Section 1. *President.*—The President shall preside at the General Meetings and over the House of Delegates, preserve order and decorum in debate, give a casting vote when necessary, and perform all the other duties that custom and parlimentary usage may require. In addition to these duties the President, on the morning of the first day of the annual session following his election, shall deliver before the General Meeting an address, not exceeding forty minutes in length, upon such matters as he may deem of importance to the Association. He shall discharge such other duties as the Association may impose on him from time to time. He may at any time make such suggestions as he may deem for the best interests of the Association, either to the General Meeting or to the House of Delegates or to any standing or special committee of the Association, provided that said suggestions are submitted in writing. He shall not be eligible for re-election.

Sec. 2. *Vice-Presidents.*—The Vice-Presidents, when called upon, shall assist the President in the performance of his duties, and during his absence, or at the request of the President, one of them shall officiate in his place. In case of the death, resignation, or removal of the President, the vacancy shall be filled by the senior Vice-President, beginning with the first. They shall perform all other duties prescribed for that office.

Sec. 3. *Secretary.*—The Secretary shall keep in separate books the minutes of each day's proceedings of the General Meeting and of the House of Delagetes, which minutes shall be read and presented for adoption by the respective bodies. He shall give due notice of the time and place of each next ensuing annual session; notify all members of committees of their appointment, and of the duties assigned to them; hold correspondence with other permanently-organized medical societies, both domestic and foreign; and carefully preserve the archives and unpublished transactions of the Association.

It shall be his duty to verify the credentials of members, to receive and announce all essays and memoirs voluntarily contributed, to determine the order in which such papers are to be read and considered, and to fix a definite hour each day for the general addresses before the Association. He shall prepare for publication the official program of each meeting. It shall be the

duty of the Secretary to provide a special registration book for members of the House of Delegates, in which shall be recorded the name of every delegate in attendance at each meeting, together with that of the society which he represents. It shall also be his duty to prepare a roll of the delegates attending each annual session, to facilitate voting by roll-call.

The Editor of the Journal of the American Medical Association shall be Secretary of this Association.

Sec. 4. *Treasurer.*—The Treasurer shall have charge of the funds and property of the Association, and shall disburse its funds only on the order of the House of Delegates or of the Board of Trustees, properly attested. He shall give to the Board of Trustees bond for the safe-keeping and proper use and disposal of his trust, and through the same Board he shall present his accounts, duly authenticatsd, at every annual session of the House of Delegates.

Sec. 5. *Board of Trustees.*—The Board of Trustees shall consist of nine members, three of whom shall be elected annually by the House of Delegates to serve for three years. It shall be the duty of this Board to provide and superintend the publication and distribution of all such proceedings, transactions, and memoirs of the Association as may be ordered to be published, in such a manner as may be directed; and in doing this it shall have authority to appoint an editor and such assistants as it deems necessary, determine their salaries, and procure and control such materials as may be necessary for the accomplishment of the work assigned to it. Further, to facilitate its work, it shall be the duty of the secretaries of the Association and of the several Sections, during each annual session or as soon thereafter as practicable, to deliver to the Board, or such editor or agent as it shall appoint, all such records of proceedings reports, addresses, papers, and other documents as may have been ordered for publication either by the General Meetings by the House of Delegates, or by the Sections. All money received by the Board of Trustees, or its agents, resulting from the discharge of the duties assigned to them, must be paid to the Treasurer of the Association, and all orders on the Treasurer for disbursements of money in any way connected with the work of publication must be endorsed by the President of the Board of Trustees and countersigned by the Secretary thereof. All matters of the Association pertaining to the expenditure of money for other purposes shall be referred, during the annual session, to the Board of Trustees, who shall make a report on the same within twenty-four hourt after the same are referred to them, and if the House of Delegates orders the expenditure of money in connection with said report, the payment shall be made by the Treasurer as provided above. It shall be the further duty of the said Board of Trustees to hold the official bond of the Treasurer for the faithful execution of his office, to annually audit and authenticate his accounts, and to present a statement of the same in its annual report to the House of Delegates, which report shall also specify the character and cost of all the publications of the Association during the year, and the amount of all other property belonging to the Association, under its control, with such suggestions as it may deem necessary. In the event of vacancy in the office of Treasurer, by death or otherwise, the Board of Trustees shall fill the vacancy *ad interim*.

Sec. 6.—All business of each annual session shall be completed by the officers who have served through the session.

CHAPTER VI.

Standing Committees.

The Standing Committees shall be the following.

1. A Committee of Arrangements.
2. A Judicial Council.
3. A Committee on Medical Legislation.
4. A Committee on Nominations.
5. A Committee on Transportatiin.

And such other Committees as the House of Delegates from time to time may create.

CHAPTER VI.

Duties of Committees.

Section 1. *Committee of Arrangements*—The Committee Arrangements shall be appointed by the President, and shall be composed of seven members residing in the place at which the Association is to hold its next annual session. It shall be required to provide: A hall for the General Meetings. 2. Hall for the House Delegates. 3. Halls for Sections. 4. Rooms for Committees. 5. Rooms for postoffice and the force thereof. 6. Rooms for registration and the force thereof. To meet the expenses the Committee of Arrangements shall have proceeds of the exhibition hall. This arrangement must be agreed to by the representative of the local committee inviting the Association, before a place for the meeting of the Association is selected by the House of Delegates.

Sec. 2. *Judicial Council.*—The Judicial Council shall be composed of nine members, three of whom shall be chosen annually by the House of Delegates to serve for three years. All questions of personal char-

acter, including complaints, protests, and credentials, shall be referred at once, after the report of the Committee of Arrangements or other presentation, to the Judicial Council without discussion.

The said Council shall organize by choosing a Chairman and Secretary, shall keep a permanent record of its proceedings, and shall report its findings to the House of Delegates at the earliest practicable moment.

Sec. 3. *Committee on Medical Legislation.*—The Committee on Medical Legislation shall consist of one delegate from each state, to be appointed annually by the President of the Association. It shall be the duty of this Committee to represent before congress and elsewhere the wishes of this association in regard to pending medical and sanitary legislation. It shall be the duty of this Committee to consider and act upon all proposed national, state, or local legislation that in any respect bears upon the promotion and preservation of the public health, or upon the material or moral welfare of the medical profession. It shall have power to fill any vacancies that may occur in its membership, act *ad interim* when necessity arises.

The committee on Legislation shall report to the House of Delegates at each annual session its proceedings during the previous year, and shall recommend such action in respect to pending legislation as it shall deem proper.

Sec. 4. *Committee on Nominations.*—The Comittee on Nominations shall consist of nine members, not more than one from one State or territory, selected annually by the House of Delegates. It shall be the duty of this Committee, after consultations with the members of the Association, to hold one or more meetings at which the assignment of the offices of the Association of each ensuing year year shall be carefully considered. The Committee shall then, on the morning of the third day of the annual session, report the result of its deliberations to the House of Delegates in the shape of a ticket providing one, two, three names for each office, but not more than one candidate for each office shall be named from any one state or territory. Nothing in this section shall construed to prevent additional nominations being made by the members of the House of Delegates.

Sec. 5 *Transportation Committee.*—The House of Delegates shall appoint a Committee on Transportation, which Committee shall secure railroad rates for the annual session and publish in the Journal of the American Medical Association sufficiently early to enaole all who desire to attend the annual session to obtain necessary information.

Sec. 6—The Standing Committees shall discharge all the duties imposed on them hy the By-Laws and such other duties as the Association may from to time direct.

Sec. 7.—The members of the Standing Committees whose appointments are not otherwise provided for shall be selected and appointed by the President of the Association before the adjourment of the annual session.

Sec. 8.—The special Committees shall perform the duties for which they are created, and when the report of a special committee is received and acted on said committee shall cease to exist.

Sec. 9.—All Special committees shall be appointed by the officer presiding over the meeting at the time the special committee is directed to be constituted. No one appointed on a syecial committee, who fails to report at the meeting next succeeding the one at which he is appointed, shall be continued on such committee, unless a satisfactory excuse is offered.

Sec. 10.—The House of Delegates shall have authority to appoint committees for special purposes from among members of the Associaton who are not members of the House of Delegates, and such Committees shall have the right to report to the House of Delegates in person, and to participate in the debate thereon pending the adoption of such report; but they shall not have the rigth to vote.

Time of Meeting.

Section 1.—The General Meetings of the American Medical Association shall be held at 11 a. m. and 7:30 p. m. of the first day of the annual session, at 7:30 p. m. of the two subsequent days, at 12 noon of the concluding day.

Sec. 2.—The various sections of the Association shall hold their first meeting of each annual session at 2 p. m. of the first day, and on subsequent days of the annual session they shall meet from 9 a. m. to 12 noon and from 2:30 p. m. to 6 p. m. until their respective programs are completed, or as the Sections themselves may otherwise order; provided, that no section meeting shall be appointed in conflict with the General Meetings.

Sec. 3.—The House of Delegates shall hold its first meeting of each annual session at 2 p. m. of the first day, and on subsequent days at such time as may be necessary to complete its business, provided that it shall not meet at hours that will conflict with the General Meetings of the Association.

Sections.

Section 1.—The American Medical Association shall be divided into the following Sections:

1. Practice of medicine.
2. Surgery and Anatomy.
3. Obstetrics and Gynecology.
4. Ophthalmology.
5. Laryngology, Otology and Rhinology.
6. Diseases of Children.
7. Materia Medica, Pharmacy and Therapeutics.
8. Physiology and Pathology.
9. Stomatology.
10. Nervous and Mental Disease.
11. Cutaneous Medicine and Surgery.
12. Hygiene and Saitary Science.

Sec. 2.—Each Section shall be composed of such members as have complied with Sections 1, 2, 3, and of chapter I of the By-Laws.

Sec. 3. *Officers of Sections.*—The officers of each Section shall be a Chairman, a Secretary, and Executive Committee. The latter shall consist of the last three retiring chairmen. At the commencement of the afternoon meeting of the third day of each annual session, each Section shall elect its own officers to serve for the ensuing year, their duties to commence with the close of the annual session at which they are elected and to continue until their successors are elected and qualify. Each Section shall elect annually two represntatives to the House of Delegates. In each Section a nominating committee of three members shall be elected by open ballot on the first day to make nominations for section officers.

Sec. 4. *Address in Sections.*—The Chairman of each Section shall prepare an address on recent advances in the branchas belonging to his Section, including such suggestions in regard to improvements or methods of work as he may deem important, and present the same to the Section over which he presides on the first day of its annual session. The reading of such addresses shall occupy not more than twenty minutes.

Sec. 5. *Papers Before Sections.* — It shall be the duty of every member of the Association who proposes to present a paper or report befor a Section to forward either the paper or an abstract indicative of its contents, and its length, to the Secretary of such Section at least one month before the annual session at which the paper or reports is to be presented. This abstract shall contain not less than two hundred words.

It shall be the duty of the Secretary of each Section to arrange such papers in the order in which they shall be read, after which he shall send such information to the Secretary of the Association at least twenty-eight days before the annual session for publication in the official program for the use of all members atttending the annual session.

Sec. 6.—*Length of Papers and Discussions.*

No paper, the reading of which occupies more than twenty minutes, shall be read before any Section. Authors of longer papers, however, may read abstracts before a Section within the allotted twenty minutes. Such papers shall be referred by the Section to the Executive Committee of the Section or to a sub-committee specially appointed for their examination. Such committee shall be allowed twenty days for such examination; at the end of which time they shall forward the papers to the Board of Trustees or to the Editor, with such recommendations as they may deem proper. No member shall address a Section more than once upon the same subject, nor speak longer than five minutes without the approval of the Section.

All papers presented directly to the Association, and other matters may, at the discretion of the Association, be referred to the various Sections for their consideration and report.

Sec. 7.—*Publication of Papers and Reports.*

No report or other paper shall be entitled to publication in the Journal of the American Medical Association, unless it be approved by each member of the Executive Committee of the Section before which it is read.

Authors of papers are required to return their proofs within two weeks after their reception.

Every paper received by the Association and ordered to be published, and all plates or other means of illustration, shall be considered the exclusive property of the Association, and shall be published and sold for the exclusive benefit of the Association.

The Board of Trustees shall have full discretionary power to omit from the Jurnal or the American Medical Association, in part or in whole, the paper that may be referred to it by any of the Sections, unless specially instructed to the contrary by a vote of the House of Delegates.

No report or other paper shall be presented to this Association, or any one of its Sections, unless it be so prepared that it can be put at once into the hands of the

Secretary to be transmitted to the Board of Trustees.

No paper shall be printed as having been read before this Association unless it has actually been read by its author, or unless for special reasons when the author has been present and prepared to read the paper, the Association or Section to which it is presented shall unanimously vote to have it read by title. All other papers shall be treated by the Board of Trustee and Editor as volunteer papers.

Reprints and transactions of Sections, including its list of members, its rules of order, its list of officers, as now published, shall be paid out of the funds of the Association and furnished free to members of the Association.

CHAPTER X.

Addresses.

The House of Delegates shall elect annually three members to deliver addresses in the General Meetings of the next ensuing annual session—one on some topic or topics relating to general medicine, one relating to general surgery, and one relating to state medicine. None of these addresses shall exceed thirty minutes in its delivery.

CHAPTER XI.

Delegates to Foreign Medical Societies.

The President shall be authorized to appoint annually delegates to represent this Association at the meetings of such scientific bodies in foreign countries as are in affiliation with this Association, whose appointment is not otherwise provided for.

CHAPTER XII.

Rules of Order.

Section 1.—This Association shall be governed by the rules prescribed in "Roberts' Rules of Order."

Sec. 2. *The Previous Question.*—When the previous question is demanded, it shall take at least ten members to second it; and when the main question is put under force of the previous question and negatived, the question shall remain under consideration as if the previous question had not been enforced.

Sec. 3.—No one shall be permitted to address the Association until he shall have announced his name and residence, which shall be distinctly repeated by the chair; but no member, except an officer of the Association, or an appointed orator, or an officer of a committhe presenting a report, shall be permitted to address the General Meetings from the platform. Remarks shall be limited to five minutes.

Sec. 4.—No new business shall be introduced at the General Meeting of the Association on the last day of the annual session except by unanimous consent.

CHAPTER XIII.

Order of Business.

Section 1. *General Meeting.*—The order of business of the General Meetings at the annual sessions of the American Medical Association shall at all times be subject to the vote of three-fourths of all the members in attendance; and, until permanently altered except when for a time suspended, it shall be as follows:

1. The calling of the meeting to order by the President elected the preceding year, or, in his absence, by one of the Vice-Presidents.
2. Reading and adopting the minutes.
3. The report of the Committee on Arrangements.
4. The reception of "members by invitation."
5. The report of standing committees in the order named in the By-Laws.
6. The annual address of the President.
7. The reception of the reports of all special committees and voluntary communications, and their reference to the appropriate Sections or committees.
8. The reading and consideration of the reports of the Committees on Prize Essays, and of the Chairman of Sections.
9. Resolutions introducing new business.
10. Reports from the several Sections.
11. Unfinished and miscellaneous business.
12. Report of the House of Delegates.
13. Adjournment.

Sec. 2. *The Opening General Meeting.*—The opening meeting shall be for the addresses of welcome, and the responses thereto, for the report of the Committee of Arrangements, and other exercises pertaining to the opening of the General Meeting and for such business as may be provided. At this Meeting the President shall deliver his annual address, which shall be referred to the House of Delegates for action.

Sec. 3. *The Closing General Meeting.*—The closing meeting shall be devoted to such exercises as may be provided, to the report of the House of Delegates, to the announcements of the election of officers, and to their installation.

Sec. 4. *House of Delegates.*

1. Call to order by the President.
2. Reading and adopting the minutes.
3. Reports of officers.
4. Reports of committees.
5. Consideration of the recommendations contained in the President's address.

6. Consideration of memorials, resolutions of other business referred from the General Meetings.

7. Consideration of memorials, resolutions or other business referred form the Sections.

8. Consideration of memorials, resolutions or other business referred form the State Societies.

9. Unfinished business.

10. New business.

Sec. 5 *Sections.*—Each Section shall have authority to arrange its own order of business.

CHAPTER XIV.

Amendments.

The House of Delegates shall have power to frame by-laws for its own government and for the government of the Association, and to amend the same; *provided*, that the proposed amendment shall be submitted in writing and lie over one year before it is acted upon; *and provided, further*, that it shall receive the affirmative vote of three-fourths of the Delegates voting.

CHAPTER XV.

These By-Laws shall be in effect and force after the close of the annual meeting of 1901; *provided*, that the Sections shall elect delegates during the session for 1901; *and provided, further*, that nothing in these By-Laws shall be construed to repeal the rules of the Association governing the relation of members to each other and to Association.

Adopted at St. Paul, Minn., Jund 5, A.D. 1901.

CHARLES A. L. REED, Presidene.
GEORGE H. SIMMONS, Secretary.

The undersigned Committee to Engross the Constitution and By-Laws hereby certifies that the foregoing copy, after verbal revision, has been carefully compared with the original as adopted at St. Paul, Minn., Sune 5, 1901, and found to be correct.

J. N. MCCORMACK,
P. MAXWELL FOSHAY,
GEORGE H. SIMMONS,
Committee.

Rates to Meeting Medical Society State of North Carolina and State Board of Medical Examiners, Wilmington, N. C., June 4-10. 1902.

Tickets to be sold June 3rd, 4th, 9th, and 10th., final limit June 16th, 1902, continuous passage in each direction.

The following total rates on this basis will apply from junctional points, viz:

From	Via	Rates
Charlotte	Sor Sal	$7.75
Danville	So Ry	10.50
Durham	So Ry	7.00
Fayetteville	A C L	4.05
Goldsboro	A C L	4.05
Greensboro	So Ry	8.70
Henderson	Sal Sor	7.00
Maxton	S A L	4.25
Norfork	ACL SAL	10.85
Raleigh	SOR SAL	6.55
Rural Hall	So Ry	10.10
Sanford	SAL ACL	5.45
Selma	SOR ACL	5.10
Suffolk	SAL ACL	10.25
Weldon	ACL SAL	7.00
Winston-Salom	So Ry	8.70

Preliminary Announcement of the State Society Meeting.

The Society will be called to order Tuesday morning, June 10th, in Wilmington.

Reduced round trip rates will be in force on all railroads.

Report of the Section on Practice of Medicine, D. J. Hill, of Lexington, Chairman.

"Uric Acid Excess," by the Chairman.

"So-called Dyspepsia and its Treatment," by C. A. Julian, of Thomasville.

"The Early Diagnosis of Pulmonary Tuberculosis," by S. H. von Ruck, of Asheville.

Report of the Section on Medical Jurisprudence and State Medicine, J. L. Nicholson, of Richlands, Chairman.

Chairman's Report.

"Inebriety, The Necessity of Legal Adjudication and Restraint of Inebriates," by Chas. Duffy, of Newbern.

"The Management of Small-pox Outbreaks," by P. J. Macon, of Warrenton.

"Should the State Extend Her Public Charities," by S. E. Koonce, of Pollocksville.

"The Mattison Method in Morphinism," by W. P. Ivey, of Lenoir.

Report of the Section on Materia Medica and Therapeutics, John B. Wright, of Granite Falls, Chairman.

"Creosote," by the Chairman.

"The Spirit of Commercialism," by B. R. Graham, of Wallace.

"Some of the Recent Remedial Measures," by W. W. McKenzie, of Salisbury.

"Alcohol—Its Physiologic Action," by C. S. Mangum, of Chapel Hill.

Report of the Section on Chemistry and Physiology, Frank O. Rogers, of Concord, Chairman.

"The Uurine," by the Chairman.

Report of the Section on Anatomy and Surgery A. S. Pendleton, of Warrenton, Chairman.

Chairman's Report:

"Appendicitis as Seen by the Country Surgeon," by James M. Parrot, of Kinston.

Report of the Section on Railway Surgery, J. H. Manning. of Rocky Mount, Chairman:

Chairman's Report:

"The Establisment of Relief Departments an Advance in Railway Surgery," by G. G. Thomas, of Wilmington.

"First Aid to the Injured in Railway Surgery," by R. B. Miller, of Rocky Mount.

Report of the Section on Pediatrics, E. D. Dixon Carroll, of Raleigh, Chairman.

Chairman's Report:

"Intubation," by J. W. Long, of Salisbury.

Report of the Section on Obstetrics, E. A. Moye, of Greenville, Chairman.

Report of the Section on Pathology and Microscopy, A. J. Crowell, of Charlotte, Chairman.

Report of the Section on Gynecology, J. Ernest Stokes of Salisbury, Chairman.

The regular working program will be printed June 15th and all those chairmen who have not yet sent in their list of papers to the Secretary should do so at once. Any one who expects to read a paper at this meeting should send the title to the Secretary so that proper place may be given on the program.

The Annual Debate will be opened by A. A. Kent, of Lenoir

On Wednesday evening the Annual Essay will be read by Eug. B. Glenn, of Asheville. and the Annual Oration delivered by John C. Rodman, of Washington.

At 10 o'clock on Wednesday morning a new Board of Medical Examiners will be elected to serve six years.

At 12 M. on Wednesday the conjoint meeting with the State Board of Health will be held.

This is one of the most important meetings the Society has held in many years and it is hoped that we will have a representative attendance from all parts of the State.

Obesity.

Stern (New York Medical Journal, March 29, 1902) finds in some cases it diminishes toward the close of the second or beginning of the third decade of life, while in others it continues to exist after maturity and he thinks that this seems to be of some etiologic importance. Where it persists after the completion of growth, the underlying causes are undoubtedly the same as those existing in the adult, but where it disappears in maturity it must be something else. The cases abiding after individual develpment he classifies as metabolic, and those which subside with the approach of adult life as transitory. Both forms occur in both sexes, but he has found the metabolic factor more frequent among boys, while the specific form certainly predominates among girls. The metabolic obesity of adolescence is virtually nothing but a juvenile modification of that which he has described as metabolic obesity in the adult, understanding by that a condition in which obesity concurs with a normal or slightly subnormal degree of body-density. It is the most common of all the types and is always due to the excessive ingestion of nutriment or to insufficient oxidation in the organism or to both together. Stern gives the proportion of calories required normally in conditions of rest and the excess in these cases which tends to produce this abnormal growth. In some exceptional instances metabolic obesity during infancy and adolescence may be due to infantile predisposition, but in the majority of cases is instead due to the habit of living adopted by parents and children, that is, either the same degree of superalimentation or the lack of body-activity or the combination of the two. In adolescence the metabolic obesity is not indicative of any important specific organic changes. The transitory obesity of adolescence occurs only in youth and he thinks there is little doubt that it is caused by certain metamorphotic anomalies which are incidental to pubescence and disappear before or at the completion of systemic development. Some anamolies are also apt to occur at the climacteric age in women and after orchidectomy and oophorectomy in consequence of the pronounced alteration in the organism. The greater frequency of this form among girls is explained by the fact that the changes occurring at puberty are more decisive in the female than in the male.

Superalimentation is not a causative factor of specific obesity and this must be due to diminished intra-organic oxidation and he attributes it to the preverted function of the thyroids, parathyroids or both. The reasons for this are first, the disapearnce of the thymus gland and the marked development of the thyroids at puberty. The more frequent occurrence of thyroid affections in girls than in boys and our physiologic and and clinical experience as regards increase in protoplasm oxidation after administration of thyroid gland or its preparations. Dr. Stern notices certain peculiarities of the

type in the specific form. The disposition of fat is more frequently on the breast and extremities, while in the metabolic variety it occurs in and upon the abomen, region of the hips, etc. In the specific form of the affection the hair of the head is full and attains great length, while it is much less abundant and apperaently short in the metablic obesity. Neither form of juvenile obesity demands treatment when the weight is not excessive, so as to interfere with the function of certain organs, or grave concomitant disorders exist. Uncomplicated cases of less than 30 per cent. overweight should not be subjected to any continuous treatment. If, however, metabolic obesity has already appeared at an early age in other members of the family, proper dietetic treatment may be of value, but it will be of no avail in checking transitory obesity which is the result of developmental anomalies. In all cases our therapuetic efforts should be directed rather to complications and concomitant disorders than to the obese condition itself. But if the condition is extreme and giving cause for alarm the thyroid preparations may be employed. A safe form of administering thyroid substance, a tablet which he has made use of for a number of years, is as follws:

R.	Arsenous acid	gr. 1.60	001
	Adonidin	gr. 1.12	005
	Thyroid gland, dry powder	gr. 2 12	

M. Ft. C. T. No. i.

Physical treatment, in any of its branches may be of benefit in individual cases of transitory obesity.

Puerperal Septicemia.

E. M. Pond (Med. Times) thinks that whenever fever and rapid pulse occur during the puerperal period, even a week or two after confinement, the case should be considered septic and so treated unless a denfinite cause can be found. Even sapremia, if neglected, may become true septicemia. In making our diagnosis we must remember that the infection may be from a lacerated perineum or vagin; if so we may have pain in the thigh or groin radiating to the knee, or we may have a phlebitis of the leg ("milk-leg"); if we remember our lymphatic supply we will at once see why. The infection may occur from the cervix and an abscess in the pelvic cellular tissue result, and lastly the infection may start in the uterus possibly at the placental site and extend either by the tubes or lymphatics to the pelvic peritoneum; as a result we may have purulent salpingitis-ovaritis or peritonitis. By recalling these complications we see at a glance that the generally adopted routine of curettement and irrigation of the uterus is not in many cases the whole treatment, and that many demand an early vaginal or abdominal section together with attention to the endometrium. The treatment advised when there is uterine or endometrial involvement seems to be that advised in an illustrated case—dilatation, mild curettement, with irrigation and gauze packing. He states his belief that gauze packing filling both uterus and vagina with an ample pad over the vulva is always of advantage in promoting drainage. The physician is directed to be on the lookout for extra uterine causes. In one case an abscess of the ovary was found; an exploratory incision and removal of only half a dram of pus caused immediate recovery. In another and fatal case the septicemia was undoubtedly caused by a ruptured pus-tube. Appendicitis and pelvic abscess should be considered among the possibilities. Even diphtheria may attack the vulva or vagina.

Strangulation of Uterine Fibroids.

E. Reynolds (Jour. Amer. Med. Assoc., March 8, 1902) reports four cases in which this condition was found which led him to the following diagnostic points: (1) The appearance early in the puerperium of severe intermittent paroxysmal pains and referred to a definite spot which is found acutely tender; (2) the appearance in a few hours of the symptoms of pelvic peritonitis; (3) the detection of an irregularity in the uterine wall at the tender spot, which can possibly only be made out under anesthesia. The principles of treatment should be: (a) The control of pain by morphine and, if not promptly successful, by brief but profound anesthesia, repeated when necessary; (b) failure of these procedures and an operable condition of the patient should point to immediate myomectomy; (c) if peritonic symptoms be extreme and operation per abdomen be contraindicated, and if the tumor be accessible from below, its free puncture and the drainage of the contained serum may be relied upon to terminate the attack and permit the removal of the tumor at a later date, should this prove necessary.

ADVERTISEMENTS.

Clinical Observations on Amenorrhea and Dysmenorrhea.*

Perhaps no subject in the whole range of the diseases of women is of such interest to the general practitioner as the two types of menstrual disorders that are usually grouped

*F. Levasseur, M.D., New York.

under the designations of amenorrhea and dysmenorrhea. While it is the purpose of this paper to consider especially the treatment of these conditions, we must remember that no rational therapy can be adopted without a thorough apprehension of the etiology of the effection to be treated. Although this principle holds good in every morbid condition, it is especially true of amenorrhea and dysmenorrhea, for these disorders may arise from so many different causes that nothing short of a thorough general and local examination will reveal the true basis of the trouble in individual cases. It behooves us, therefore, before passing on to the subject of treatment, to consider somewhat in detail the etiology of amenorrhea and dysmenorrhea.

AMENORRHEA.

Causes.—Amenorrhea is the pathologic absence of menstruation. Hence the absence of the menstrual function during those periods of life when such absence is physiologic—before puberty, during pregnancy and lactation, and after the climacteric—does not come under this definition. The term suppression has been applied by many writers to temporary amenorrhea, *i e.*, to absence of the menstrual function for a limited period of time. We think it is more rational to apply this term only to the interruption of the menstrual flow during a period.

If amenorrhea be defined as the absence of the menstrual function, not of the menstrual flow, then we should also exclude cryptomenorrhea, or retained menstrual blood as a result of an atresia in the genital tract, from the classification. We mention this condition under the causes of amenorrhea because it is usually spoken of in connection with the subject of menstrual anomalies. The causes of amenorrhea may be tabulated as follows:

I. Organic: [*a*] *Congenital:* 1, Absence of ovaries or uterus, or both; 2, rudimentary uterus or ovaries, or both; 3, atresia of the genital tract (cryptomenorrhea). [*b*] *Acquired:* 1, Degeneration or malignant diseases of the ovaries; 2, metritis and endometritis; 3, atrophy of ovaries or uterus; 4, pelvic peritonitis; 5, atresia of cervix or vagina; 6, removal of both ovaries or uterus.

II. Functional: 1, Sudden mental or physical shock; 2, change of climate or of mode of life; 3, reflex neuroses; 4, exposure to cold and wet (suppression); 5, without discoverable cause.

III. Constitutional: 1, Chlorosis; 2, other varieties of anemia; 3, chronic wasting disease, especially tuberculosis; 4, acute infectious diseases; 5, diabetes, mellitus and insipidus; 6, splenic leukemia; 7, obesity; 8, myxedema; 9, acromegaly; 10, Addison's disease; 11, exophthalmic goitre; 12, morphinism; 13, alcoholism; 14, nervous and mental disorders, *e. g.*, chorea and general paresis.

Organic Causes.—Absence or rudimentary state of the ovaries or uterus give rise to the most hopeless types of amenorrhea. It should be remembered that when the ovaries are present and fairly normal, while uterus is rudimentary or absent, the menstrual wave will come on periodically without any discharge. If the uterus be present, and the ovaries absent, there will be no menstrual molimina. Atresia of the genital tract will give rise to hematocolpos, hematometra, etc., will necessitate operative interference. Most acquired affections of the ovary produce dysmenorrhea; it is only the malignant growths and the various degenerative processes that destroy the greater part of the ovarian substance that produce cessation of ovulation (Gebhard). Of course, this rule, like all others, has its exceptions.

Metritis and endometritis, if advanced far enough, will produce an almost complete obliteration of the uterine cavity. Acquired atrophy of the generative organs may be the result of chronic wasting disease, or of the removal of fibroid tumors, or occasionally it may follow operation for lacerated cervix. Pelvic peritonitis acts through occlusion of the Fallopian tubes by adhesions. Acquired atresia of the cervix or vagina may give rise to the phenomena of retained menstruation. After removal of both ovaries menstruation does not cease in all cases, as may be supposed. In about 4 per cent. of cases the menstrual function continues for a variable length of time, and after removal of the uterus the ovaries may either atrophy or menstruation may continue for a time through the vaginal cicatrix or vicariously from some other part of the body.

Functional Causes.—Sudden severe mental or physical shock, whether caused by pleasurable emotion or by fear or grief, may produce suppression or temporary amenorrhea. Gebhard speaks of such instances in young girls who, for good and sufficient reasons believes that they have become pregnant. The date of the expected menstrual period is awaited with great anxiety, and, if the day passes without any signs of a flow, a great fear seizes the girl, and under the influence of this emotion the menstruation is suppressed. After a while, when she grows more calm and resigns herself to the inevitable, the menstruation reappears, thus removing all anxiety as to possible conception. Amenorrhea may also

occur in married women whose greatest wish is to become pregnant, and who get so excited when the period comes that their menses are suppressed. These women often come to the physician with spurious pregnancies.

The fact that change of climate may bring about amenorrhea and other disturbances of menstruation is too well known to need comment. The removal from country to city and the change from physical to mental activity are specially apt to cause such amenorrheas in young women.

A number of cases of amenorrhea have been reported in literature as having been caused by reflex neuroses of various kinds. Such, for example, are the cases reported by Oppenheimer and Mackenzie in which hypertrophy of the mucous membrane of the nose gave rise to the reflex.

Exposure to wet and cold before or during the period is the most frequent cause of suppression. Imprudent walking in wet weather without sufficient protection of the feet, or going about in cold weather without sufficient underclothing, especially about the legs, thighs, and pelvis, or even washing the genitals in too cold water (Gebhard), are the usual modes of exposure.

Finally, we are forced to group under functional cases those instances of amenorrhea in which no assignable cause can be found. Unfortunately, such cases still come under our notice. They include, for example, the amenorrhea of girls who lead luxurious, sedentary lives, lack physical exercise, and are generally nervous and high-strung. In this category we may also group the mysterious cases of vicarious menstruation. Suppression or sudden cessation of the menses in married women should always lead us to suspect pregnancy. It is best to consider these women at least theoretically pregnant on general principles, and to be very cautious lest we interfere with the pregnancy by the administration of emmenagogues. A bimanual examination and a look at the nipples will almost always give valuable information.

Constitutional Causes.—The foremost role among these is taken by chlorosis. The exact etiologic relation between chlorosis and amenorrhea is a matter of dispute. Thus some authorities—*e. g.*, Virchow—assume that the primary cause in these cases is a chlorotic predisposition which depends upon insufficient development of the blood vessels, while others—*e. g.*, Fraenkel—believe that the primary cause is to be sought in the deficiency of development on the part of the sexual organs. Stieda pointed out that, in addition to the general manifestations, chlorotic amenorrhea in young women is often accompanied by other anomalies of development, such as infantile type of pelvis and genitals, deformities of the skull, depression of the root of the nose, prognathism, and high palate. Hegar sums up the subject by stating that chlorosis is probably a congenital degenerative process which remains latent until puberty.

The symptoms of chlorotic amenorhea are rather the effect of the chlorosis than of the amenorrhea. The course of these cases is usually as follows: At first menstruation appears at the regular intervals, or it may begin at a little earlier age than the average (Stephenson), but after a while the periods become irregular, the symptoms of chlorosis appear, and menstruation gradually ceases. The amenorrhea may continue for months and years, the molimina being usually absent because ovulation has been suspended. The menstrual function sometimes returns and continues for a while at irregular or lengthened intervals.

A great deal has been written concerning amenorrhea in other types of anemia, especially in the acute anemias due to postpartum hemorrhage. Yet cases are reported in which amenorrhea set in after labor without lactation and without any excess of hemorrhage (Gottschalk).

Acute infectious diseases are often accompanied or followed by amenorrhea, probably on account of the degenerative changes of toxic origin which takes place in the ovarian substance. Examples of this type of cases are typhoid fever (Gebhard, Gottschalk), scarlatina (Lawson Tait and Lebedjensky), variola, measles, and parotitis (Thomas and Munde).

Chronic wasting diseases accompanied by the condition known as cachexia are also frequent causes of amenorrhea. In this condition both ovulation and menstruation may cease, and this is especially so in tuberculosis. According to Thorn, this type of amenorrhea is due to atrophy of both ovaries followed by atrophy of the uterus. In physical women there may be at first menorrhagia, followed later by amenorrhea.

Amenorrhea has also been observed in a number of conditions which are often summed up as disease of metabolism. Among these are diabetes, mellitus and insipidus (Hoffmeier, Cohn, Nebel, Stroynovsky); splenic leukemia (Gottschalk); myxedema (Landau, Schotten, Starr, Bramwell); acromegaly (Marie, Verstraeten, Freund and Mosler); Addison's disease (G. Lewin) and exophthalmic goitre (Kleinwaechter, Theilhaber).

Obesity is often accompanied by amen-

THIS JOURNAL

would have to be many times its present size to print even brief abstracts of the number of cases of Nervous Exhaustion, Malnutrition, Anæmia, General Debility, permanently cured by

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It is an unequalled tonic, restorative, and reconstructive.

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15 Murray Street, New York.

orrhea, especially in young women soon after marriage (Thomas and Munde), and these women very often seek relief on account of the sterility which is usually present. In such cases the primary factor in the treatment is the reduction of the obesity by all means at our command.

Morphanism and the opium habit have been blamed for the amenorrhea which occurs in women who are habitual users of these drugs (Liebersohn, W. Lewinstein, Passower, Roller, and Burchart), and chronic alcoholism may have a similar effect on the menstrual function, according to Carter.

Insanity is not infrequenly accompanied by amenorrhea. Sutton and Giles say, in speaking of the subject: "If in such a case menstruation comes on again the mental condition often improves, indicating, not that the amenorrhea is the cause of the insanity, but that nutritive conditions which were probably responsible for both symptoms, have improved." Petit speaks of amenorrhea in progressive paralysis, and Koch of its occurrence in chorea.

Symptoms.—No symptoms referable to the sexual apparatus exist in cases of absence or atrophy of the uterus. The physician is usually consulted in such cases when menstruation seems to be due and does not appear. In atresia, the local phenomena, due to accumulation of blood behind the obstruction, are the prominent symptoms. In the other classes of menorrhea the symptoms of the primary condition predominate. The menstrual molimina are present in cases in which the function of the ovary persists. A variety of nervous and psychic disturbances have been described in connection with amenorrhea. The patients are often depressed, tired, and irritable during the time corresponding to the periods. Macnaughton-Jones says that suicide is sometimes attempted under these conditions. A curious pigmentation of the skin, analogous to chloasma in pregnant women has been observed in amenorrhoric cases, and paresthesiæ of various parts of the body as well as a variety of eye diseases have been reported. Vicarious menstruation may be classed as a symptom of amenorrhea.

The prognosis of amenorrhea depends upon the cause. A number of causes are irreparable—*e. g.*, absence or atrophy of the ovaries or uterus, cancerous growths, etc. Among the constitutional causes the anemias are the most favorable, and the less well-known diseases, such as diabetes, acromegaly, etc., the worst from a prognostic viewpoint. It is possible sometimes to restore the slumbering ovarian function by stimulating treatment when a portion of the ovary has remained unatrophied. In amenorrhea due to acute disease the prognosis is favorable, for the menstrual func-

tion generally returns after convalescence.

Dysmenorrhea.

Causes.—Dysmenorrhea means menstruation accompanied by pain. As many women have perfectly normal menstruation accompanied by a certain amount of pain, it is difficult to draw a sharp distinction between normal and pathologic conditions here. Pain is such a variable quantity and depends so much upon the personal equation that one cannot always say with certainty that one patient has more pain than another. The pain of dysmenorrhea is primarily in the uterus, ovaries, and adnexa, but it is often referred to various other regions of the body at considerable distance from these organs.

Thomas gives a most convenient working classification of the causes of dysmenorrhea. He distinguishes five varieties: 1, neuralgic; 2, congestive or inflammatory; 3, obstructive; 4, membranous; and 5, ovarian. This last group I would include in the second class, as it depends upon a congestion or inflammation of the ovaries. On the other hand, two new types of dysmenorrhea which have recently been described must be added to this list. The first is the reflex dysmenorrhea of Fleiss and others, the second the atrophic dysmenorrhea of W. A. Freund.

A few words concerning the nature of these groups will suffice for the present purpose. The inflammatory type depends upon congestion or inflammation of the uterus, tubes, or pelvic peritoneum. The most important inflammatory condition leading to dysmenorrhea is corporeal endometritis, acquired as a result of utenine infection, malposition, etc. Adhesions due to perimetritic inflammation may cause menstrual pain. Chronic latent oophoritis, accompanied by swelling and tenderness of the ovaries, is also a prolific cause of this type of dysmenorrhea. In such cases the pain is more continuous and not so identified with the menstrual period, itself, and it is localized in the ovarian region.

Membranous Dysmenorrhea was first described by Morgagni in 1723. It has given occasion for a number of investigations, but its causes as yet but imperfectly understood It is characterized by the formation of a membranous bag in the uterus, which is expelled as a whole or in pieces during the menstrual period. The chief cause is undoubtedly endometritis. According to Loehlein it is due to endometritis which follows labor. Heredity, bodily exertion, or excitement are also factors mentioned in this connection.

Neuralgic or, Simply Nervous Dysmenorrhea.—This group includes menstrual pains due to a variety of causes. In some cases there may be said to exist a true neuralgia, for there is an oversensitiveness of the endometrium on passing the uterine sound. In some patients there is neuralgia of other nerves, *e. g.*, the facial, and they may therefore be accepted as cases of neuralgic neurotic women and in those who are sexually hyperesthetic.

Obstructive Dysmenorrhea. — Obstruction to the discharge may be due to displacement of the uterus, especially to anteflexion, to uterine polypi, submucous fibroids, especially those near the cirvix; sacculations or recesses in the uterine cavity; to congenital or acquired stenosis of the cervix or the vagina. It seems strange that many women have sufficient mechanical obstruction to produce dysmenorrhea and yet never have any pain in menstruating. There must be other elements than mechanical obstruction in these cases, if severe pain is complained of. Thus it is possible that there is in addition to the obstruction a neuralgic or inflammatory element.

Reflex Dysmenorrhea is a term applied to menstrual pain which results reflexly from various other organs of the body. Fleiss describes what he terms the genital spot in the nose. It is situated in the lower turbinal cavity near the tubercle of the septum. This spot becomes swollen and hyperesthetic in some patients, and at the same time dysmenorrhea appears. If the spot be cocainized, or, still better, cauterized, the dysmenorrhea ceases.

Atrophic Dysmenorrhea.—W. A Feund has described a type of dysmenorrhea due to atrophy of the uterus and ovary. He explains this condition by assuming that the uterine blood vessels have become so narrowed in proportion to the pressure of the blood, and that stosis and pain result. The pain is also increased by the smallness of the uterine cavity. This variety of dysmenorrhea may be present from the first or may come on later. When coitus stimulates the development of the sexual organs, the atrophy disappears and with it the menstrual pain. Patients are, therefore, advised to marry.

Symptoms.—The symptoms of dysmenorrhea are, of course, centered in the uterine pain which comes on before the flow and often becomes less severe when a free flow takes place. In some cases the pain is so violent that patients become hysterical. According to Bissel exacerbations of latent insanity may occur as a result of dysmenorrhea. Occasionally the gastro-intestinal tract gives signs of disturbed function, and in cardiopathics the compensation may be disturbed during the menstrual

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periods. Thevenot reported coincident attacks of biliary colic and dysmenorrhea.

In this connection a word may be said of intermenstrual pain. This phenomenon has been recently studied in detail by Croom, and is defined as uterine pain corresponding in character to that of dysmenorrhea, but recurring during the intervals between the periods.

The *Prognosis* of dysmenorrhea, like that of amenorrhea, depends upon the cause. Neuralgic cases are often troublesome. Membranous cases are the most hopeless, but the remainder can usually be cured by the proper treatment.

Treatment of Amenorrhea and Dysmenorrhea.

It is not my purpose to give here the treatment of all the varieties of these affections in detail. I will confine myself to the enumeration of the various procedures employed, and will dwell particularly on the treatment employed by me in a class of cases frequently met with in general medical practice.

The treatment of organic amenorrhea is chiefly surgical or mechano-gynecologic. In many cases, such as those in which the ovaries are absent, even surgery will accomplish nothing so far as restoration of the menstrual function is concerned. In cases of rudimentary ovaries various methods of stimulating the dormant activity of these organs have been employed with more or less success. Among them are electricity, ovarian extract, and sexual activity in marriage; massage, gymnastic exercises, change of climate, passing of uterine sounds and stems, and methods calculated to increase ovarian and uterine congestion, such as hot vaginal douches, foot baths and sitz baths, scarification, and the application of leeches to the cervix.

In functional and in constitutional amenorrhea the treatment consist in avoidance or removal of the cause and in the administration of emmenagogues. Of these I shall speak in connection with my cases.

In dysmenorrhea, if dependent on organic causes, the appropriate surgical or mechanical procedure must be resorted to. In desperate cases castration has been deemed necessary. In purely functional cases the two indications are the relief of pain and the administration of emmenagogues to relieve the uterine congestion. The relief of pain is accomplish by one or another of the analgesic drugs. Morphine is, of course, to be avoided so far as possible. In addition, the use of hot packs about the pelvis and other means of applying heat are also very popular in the acute paroxysms of pain which characterize dysmenorrhea.

The list of emmenagogues is very long, but many of them are unsuited for use in amenorrhea or dysmenorrhea because of their inefficiency or because of their harmful effects. After trying successively manganese dioxide, potassium permagnaate ,ergot, also, oil of savin, apiol, and numerous other drugs of this class, the writer became convinced that the four last-named drugs, particularly apiol, may be considered as the most efficient and, in proper doses, the least harmful of their class.

Apiol is perhaps not so well known as it deserves to be. It has gained considerable popularity among French and English physicians, and has been introduced into this country some years ago. At first it was recommended for malaria, as a substitute for quinine, but later its emmenagogue virtues became known. It is the active principle of apium petroselinum, L., or of petroselinum sativum, and was first isolated by Joret and Homolle in 1855. The apiol of the market is usually full of resinous impurities and, therefore, not suitable for administration. Indeed, the many failures to secure the emmenagogue action of apiol which physicians in this country heretofore experienced were chiefly due to the fact that the apiol usually sold as such was in reality a mixture of impure principles from parsley by a simple process of extraction. In the cases reported here I employed the preparation called Ergoapiol (Smith), which contains a combination of pure apiol, ergot, oil of savin, and aloin in capsules. The histories of these cases are briefly given here. I will say in general that in all these cases emmenagogues were indicated and organic changes in the genital system excluded by examination. In addition to the cases reported below I have used Ergoapiol (Smith) in eighty others with results similar to those described here:

Case 1. Miss C. R., aged 15 years, menstruated for the first time five months ago, and only once since then has had any indicating pains, and these without any flow during the month following the first menstruation. After treating her with iron, arsenic, etc., including douches and hip baths, without any apparent effect, I tried the Ergoapiol (Smith), giving her one capsule four times a day. On the fourth day I found that menstruation had been established, a slight pain remained, which disappear after a warm hip bath, when the entire function became normal.

Cse 2. Miss E. M. (nurse), aged 27, unmarried, suffered greatly at the menstrual period. I had used in her case many of the preparations recommended for dysmenorrhea, with poor success, and she had be-

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come convinced that only large doses of morphine with inhalations of chloroform, for which she had been employing for some time, could give her relief. I prescribed two capsules four times a day, and one capsule four times a day during menstruation. The periods now occur without the slightest discomfort.

Case 3. Mrs. D. S., aged 27, family history good, came for treatment October 10th; she had not menstruated for three months, no pregnacy existing. Diagnosis, nervous amenorrhea. Treatment was begun with two capsules four times a day for three days, then continued with one capsue three times a day. On the fifth day menstruation began slightly, and two capsules were administered three times daily until the sixth day, when the function was well established. In the month of November, two days previous to the menstrual period, one capsule was given as a precaution, three times a day for two days, and followed by normal menstruation.

Mrs. H. S., aged 32, married twelve years, suffered every month with dysmenorrhea, and gave history of scany menstruation since birth of her child, three years ago. I prescribed one capsule every four hours for three days before her period, and continued with one capsule three times a day during menstruation, which passed with comparative ease with a normal flow. A month later the patient repeated the previous treatment with the same good results.

Case 5. Miss A.T.,aged 25. Dymenorrhea with very offensive discharge. She was suffering with severe pains before and during menstruation. One capsule was given four times a day just previous to the expected period. The menses appeared without pain and with comparatively little odor, and menstruation became more nearly normal than it had been for several months.

Case 6. Mrs. N. P., aged 24, multipara, had not menstruated since confinement, a period of twenty-two months. She had tried various emmenagogues, but without result. After taking two capsules three times a day for a few days, menstruation was reestablished in a perfectly normal manner.

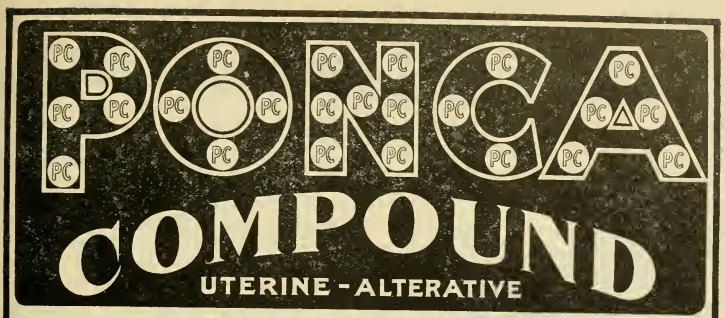
Case 7. Miss O. R., aged 18, single, had been treated for syphilis for past six months, during which time she had had severe pains with scanty flow during her monthly periods. Her physician had prescribed various remedies, but without success. When she came to me she had passed her menstrual period for five days and pain and fever associated with nausea. I prescribed Ergoapiol (Smith), directing her to begin at once with two capsules four time a day, and in order to avoid any further stomach disturbance I ordered a glass of milk with the capsules. On the third day the menses appeared without pain and almost normal in amount.

Case 8. Miss F. R., aged 28, had always suffered with severe backache and pains in the abdomen for two or three days before and during menstruation, which usually lasted four to five days. Her health in every other respect seemed perfect. Patient had been treated without success with usual remedies in such cases, including the "green apiol." The cervix was also dilated on two occasions without relief. I directed her to begin two days before the expected period with one capsule four times a day (two capsules three times a day during the first twenty-four hours). The menses appeared on the third day without any pain, and she continued to take one capsule three times a day during the remainder of the period, which closed on the second day. During the following period, the patient repeated the treatment of the previous month, with more marked relief.

Case. 9. Mrs. E.B.,aged 29,married four years, no children,had suffered every month with dysmenorrhea and a somewhat fetid discharge. Her agony was so intense that she was obliged to reman in her bed for about two days each period, and acquired the habit of taking large doses of paregoric, Hoffmann's anodyne, and viburnum extract with very little relief. During one of these attacks I was called in, and after quieting her with one-quarter grain of morphine, hypodermatically, I prescribed two capsules four times a day until menstruation had ceased. On the following day I found my patient more comfortable, having only a slight pain, and on the third day I found her quite well. She reported that during the last two days of her menstruation she had been better than during any menstrual period within the last four years.

Case 10. Mrs. E., aged 20, married six months, complained of scanty and retarded menstruation. She had always been more or less irregular and had suffered with considerable dysmenorrhea. At her last two periods, under the administration of one capsule four times a day, the menses appeared regularly without any distress.

Case 11. Mrs. H. J., aged 22, married two years, had been troubled with menstrual irregularity since her employment in a department store four years previous to her marriage. She was more regular during the few periods following confinement, but later her menses became more irregular and



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painful than at any time before. Two months ago she came to me with suppressed menses, the result of exposure and shock received through the upsetting of a sailboat. I made an examination, but found no signs of pregnancy, and directed her to take two capsules Ergoapiol (Smith) four times a day until some indication of a return of the menses. I told her to continue with one capsule three times a day until menstruation had ceased. She reported to me on the fifth day that the flow had reappeared in aboundance and without pain, saying that she felt in unusally good health. I instructed her to take one capsule three times a day two days before the next period, and to continue in the same way, if menstruation appeared, until it ceased. She has since reported that the capsules brought about the same result as in the first month.

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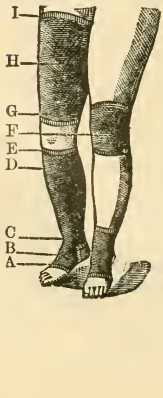

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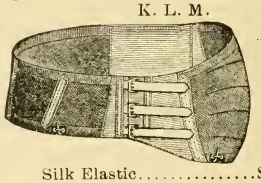

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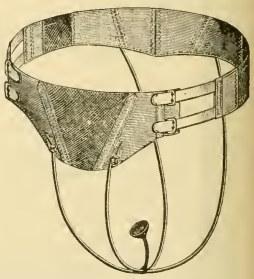

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To the Medical Faculty.

Your attention is earnestly called to the valuable mineral water of the Allouez Magnesia Springs. It is a natural alkaline diuretic water of extra ordinary composition and efficacy and used extensively by the profession everywhery. Taken regularly for several weeks it induces healthy stomachic and internal action, regulating nutrition and promoting the assimulation of food.

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Incidence of Smallpox as Regards Vaccination.

Up to the beginning of December, 349 cases of smallpox, in the present outbreak in London, had been "completed"—that is to say, had ended in death or recovery—and from an evidently authorized statement it appears that the borough of St. Pancras heads the list with 94 cases. The number is rather small for statistical purposes, but so far it appears that after the age of fifty the liability to smallpox is slight. Of the 349 cases, 116 ended fatally. This is of course, a high rate; but it must be taken into consideration that, since death usually takes place at a comparatively early stage of the illness, the fatal cases are in advance of recoveries.

These were distributed as follows:

Vaccinated, 233 cases; deaths, 47; rate of mortality, 20 per cent. Unvaccinated, 97 cases; deaths, 47; rate of mortality, 60 per cent. Doubtful, 19 cases; deaths, 58; rate of mortality, 57 per cent.—*Public Health.*

The Neuritis of Tuberculosis.

Clemente Ferraris reports a case in which all the researches and experiments made went to prove the fact already recognized clinically, that a peripheral neuritis, although reaching the point of absolute paralysis, accompanied by exaggerated reflexes, and not accompanied by alteration in sensation, may be entirely due to the toxic action of the tubercle bacillus acting on the peripheral nerves.—*La Riforma Medico.*

"What does your wife call you?" "When we were engaged she used to call me 'sweetheart.' Nowadays she usually calls me down."

The Charlotte Medical Journal.

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The Mattison Method in Morphinism.*

By W. P. Ivey, M.D., Lenoir, N. C.

The man with morphinism is like the man with few shekels, in that he is always with us. His habitat is not bounded by zone or any imaginary or fixed line and he flourishes alike in all seasons. In the United States alone he is one hundred thousand strong. Some of us may never see a case of hemorrhagic malarial fever. Some of us may never see a case of smallpox or milk sickness or leprosy, but every single blessed one of us will be certain to run afoul the unfortunate opium inebriate. And he is likely to be an acquaintance of long standing and not easily shaken. This has been the experience not only of the past, but is sure to be the experience of the future *ad infinitum*. Vaccine and antitoxine have over and over again decimated the ranks of possible deadly disease, but none of their uncles, their cousins or their aunts will ever be able to curtail the number of narcotic habitues. Kerosene oil and mosquito netting will work wonders as preventive measures, but no kindred means will ever avail to block the harbor against the invasion of the subtle fleet from Turkey. As long as there is a muscle to contract and contort, as long as there is a nerve to jump and jerk and twinge, as long as there is a hollow organ to twist and cramp and turn itself wrong side in, and just as long as the papaver somniferum continues to exude the same stuff it now furnishes us, just so long will we be called upon to relieve the unfortunate victims of such a combination.

I am prompted to write this paper by these considerations, together with the fact that I opine that but few of my brethren have investigated the Mattison Method and fewer still have tried it. Hare in his Practical Therapeutics devotes a few lines to its consideration and dismisses it with the statement that it deserves a more extended notice. I have given it that more extended notice and trial and wish to give you the benefit of my experience. I had heard of the Mattison Method for a dozen years or more, but had not given it attention enough to even know what it was. Necessity finally drove me to the use of it. Some of you may get caught in the very same trap and my advice to you is to listen to me, for I tell you positively that I have something of advantage to say to you.

A gentleman had just discovered that his wife had been taking laudnaum in large doses for a long time. He was in great distress and came to me for assistance. He was a man of means and said the habit must be broken up, if it cost all he had. His wife also expressed a desire to be rid of her incumbrance. Having assured him that we had a big job on our hands and might or might not succeed, I began the treatment I had always used up to this time, which need not be detailed here, only to say it included in this special case the sudden withdrawal of the laudanum. They lived six miles in the country and I heard nothing from them for two or three days, when I was called at midnight to go out to see her. I found her nervous and sleepless and vomiting everything taken into her stomach. I saw at once that my treatment was no good and that the next thing to be done was something else and I was not long in deciding what that something else should be. Here I was at midnight, six miles in the country, with a woman without sleep and with a non-retentive stomach. I was away from a drug store, with no refined pharmaceuticals on hand and with no disposition to put in the night there in a fruitless effort to get her quiet. What did I do? Well, yes. I simply gave her ninety drops of laudanum. It stuck, of course, and in an hour's time she and the whole family were asleep and in a little longer time I was asleep in my own bed at home. And my woman, she was an inebriate still. The next morning I went back and began at once the Mattison Method and in three weeks time the woman was well with a minimum amount of trouble.

You will recall, gentlemen, that the Mattison Method, in short, is rapidly filling up the patient with bromide of soda and at the same time rapidly reducing the amount of the narcotic; with the downward stroke pump him full of bromide and with the upward stroke pump him dry of opium. There are two necessary preliminaries to the treatment, which must be observed, else the result will be very doubtful, if not a certain failure. First, put the patient to bed, absolutely, as much to bed as if he were in the third week of typhoid fever. Second, have a nurse of firmness, honesty and de-

*Read before the North Carolina State Medical Society, June 10, 1902.

cision, whose sole duty is to stay with the patient all the time. The special reasons for these two requirements will appear in the further elucidation of the subject.

In Hare's Therapeutics the Method is detailed as beginning with sixty grains of bromide of soda twice daily and increasing the dose ten grains each day for seven days. In the Twentieth Century Practice the initial dose is put down at thirty grains with the same daily increase for seven days. Dr. Mattison himself now begins with an initial dose of ten grains only and increases by ten grains each day for ten days instead of seven, the amount of the bromide being practically the same in each case. I have not had any experience with the smaller initial dose, having used the sixty grain dose in all cases. In one of these cases at least I am satisfied that a smaller amount would have answered the purpose. Dr. Mattison, who, of course, has had more experience in its use than any one else, thinks the sixty grain dose unnecessary. I am inclined to think that he is speaking from the standpoint of a hospital physician and that in general practice the larger dose, thirty grains at least, would be necessary.

Having selected an eligible case, let us begin. At 4 p. m., and 4 a. m., give a dose of the bromide and at 10 p. m., and at 10 a. m., a dose of the accustomed narcotic. For the first few days give the opiate in gradually diminishing doses and afterwards when the patient is becoming brominized, diminish the dose more rapidly, so regulating it that the last dose is given not later than the tenth day. If anything else is required to relieve pain or secure sleep, give a dose of codeine or trional. Dr. Mattison regards codeine and trional as very important, though not necessary, factors of his treatment. In the cases in which I have employed the treatment I have not found it necessary to use either one of them. I might find it necessary in my very next case to use one or both of them, but I would hesitate a long time before using codeine. Here comes in again the difference between hospital and general practice. Codeine is all right, if necessary, in hospital practice, but in general practice in these cases I have a prejudice against it on account of its maternal ancestor. In any event, it is rarely called for till after the opiate is entirely withdrawn. Tonics and digestives, especially strychnine, may be given along as necessary and elimination looked after in the latter part of the treatment. After the first few days, the patient grows drowsy, shows no disposition to get up, sleeps most of the time and shows signs of muscular weaknes. There is the bromide breath and may be some hallucinations, delusions and aphasia. The pulse usually falls to 70 or 60, but in my first case it began at 60 and gradually rose to 120, necessitating the use of digitalis.

The rationale of the bromide treatment is, that all the troubles in discontinuing the habitual use of opium, such unpleasant symptoms as yawning, sneezing, aching pains, vomiting and diarrhea come from the reflexes and these are abolished by large doses of bromide. Remember this, when you undertake a case—the citadel to be attacked is the reflexes and the slogan of war must be, down with the reflexes.

What are the advantages of this treatment? It gets the patient off of his drug with the least amount of suffering. Sudden withdrawal is cruel. The family also is saved any amount of sympathetic misery and often this gives the doctor as much trouble as the patient himself. Second, it is much less trouble to the physician, in fact, it is the only treatment he can use outside of a hospital without the greatest amount of worry and annoyance. It is by large odds *the* method for the general practitioner. Having had considerable experience both in hospital and out, I have made the statement that positively I would not undertake to treat a case of opium inebriety with any hope of success except with the patient under lock and key. I am of the same opinion still, but maintain that the Mattison Method is virtually lock and key. It is chemical or therapeutical restraint. To be successful you must so bromonize your patient, that he wouldn't get up if he could and couldn't get up if he would. This is the milk in the cocoanut and requires discrimination to know when this point is reached. Some patients will require more and some less bromide and some will require adjuvants, while others will not. The Method must be elastic. As Mattison himself aptly puts it, "you must mix your bromide with brains." Another advantage. A physician, who knows this treatment by experience, will use no other. The same is true of the patient. Literature is full of descriptions of the horrors attendant upon the escape of the opiumist from his thralldom and I can not say that the pictures have been overdrawn. Many unfortunates of this class forbear undergoing treatment through dread of suffering. A knowledge by experience or otherwise of a possible escape without these horrors would largely swell the number willing to undergo treatment. I confess that this advantage might also work as a disadvantage. The knowledge of a quick and painless release from his habit would cause him to fight less valiantly against its resumption.

In my opinion the Mattison Method has

no advantage over any other method in making the cure permanent. It does not make the "Keely Klaim." As in any other treatment the patient must not be dismissed too early, but must be considered a patient for several weeks and be looked after with tonics, restoratives and restricted enviroments.

Are there any disadvantages? To be sure, cases must be properly selected. There are some weak broken down cases in which it could not be used to advantage. It is depressing to muscular tissue and could not be used where there is marked cardiac weakness. In properly selected cases there are no untoward effects either during or after treatment. One condition may or may not happen during the progress of the treatment for which you must be prepared and that is mental aberration. There is always more or less hebetude of mind, which in some cases, especially when the larger doses of bromide are used, many go on to complete acute dementia or in other cases to mania with hallucinations and delusions. This may or may not be the result of the large doses of bromide, as mental symptoms with delusions and hallucinations often occur in such cases independent of the use of bromide. In any event you must be prepared for such an occurrence or you will likely be very much frightened. Such symptoms are always transient and rapidly subsided as the bromide is eliminated. There need be no fear of a permanent dementia from a ten day use of bromide, however, often that condition might occur from the long continued use of the drug as in epilepsy. The family must be warned in advance of the possible mental symptoms or your position will not be an easy one. In giving this warning the occurrence should be attributed to the withdrawal of the drug and not to the administration of the cure.

After I had decided to write a paper upon this subject, I was invited by the chairman of the section on state medicine to contribute a paper to his section. As I could not furnish two papers, and, as this subject was close akin to a state subject, it was agreed that I should present it under his section and give it a sufficient medico-legal turn as to make it look not out of place. But I find my paper already too long and must dismiss the subject with only a few words upon its provincial aspect.

The cause of much of the morphinism is laid at the door of the medical man and I'm sorry to say much of it justly so. The victim will in nearly every case berate the doctor, who prescribed the drug, and lose sight of those who subsequently buy and dispense without his knowledge or consent. The doctor has to bear much of the blame that ought to attach to others and I am here to defend him at the expense of the state. While physicians should exercise the greatest care in the use of narcotics, I think the prevention of their abuse is largely a matter for the state. Strict, uniform laws regulating the sale of narcotic drugs is the only way to restrict their illegitimate use.

As to the culpability of the medical man, a case has recently been decided in the English courts, in which a doctor was sued for malpractice in that he was the cause of the plaintiff's opium habit. The decision was in favor of the medical man and the main reason for the decision was that the plaintiff, being a trained nurse, ought to have been aware of her danger. This teaches us a very important lesson both in medicine and in law and it would be well for every one of us to remember it. In every case, where it is necessary to use narcotics for any length of time, or in any case in which their use not entirely within your control or likely to give trouble, *always* give unmistakable warning and have proof of it.

Some Remarks on Intubation.

By Edward F. Parker, M. D., Prof. of Physiology and Lecturer in Diseases of the Eye, Ear, and Throat, Medical College, of the State of S. C., Charleston.

Case 1.—On November 4, 1901, at 1 o'clock p. m. I was asked to see C.M., aged 5 a small, well nourished boy, in consultation with Drs. Kirk and Maybank, who had previously agreed that intubation or tracheotomy was necessary, on account of laryngeal stenosis and dyspnœa.

After a few moments observation all agreed that interference was required, and I introduced a tube which gave immediate relief. Subsequent examination showed the Klebs-Lœffler Bacillus.

On 5th, he was given 1,700 units of Antitoxin,
on the 6th, 2,000 in the morning,
2,000 in the evening,
on the 7th, 2,000 in the morning,
2,000 in the evening,
on the 8th, 2,000 in the morning,
making 11,700 in four days.

On the 5th, the tube was withdrawn, but the dyspnœa was so great that asphyxiation and death nearly took place before the tube could be introduced again. On the 8th,

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Read at the annual meeting of South Carolina Medical Association, April 17, 1902.

the tube was again removed and uninterrupted recovery followed.

Case 2.—On November 29th, 1901, at 11 p.m., Dr. Mullally asked me to see B. H., a young lad, aged 4, who was threatened with suffocation from laryngeal stenosis.

On the 27th, he had been given 1,500 units of Antitoxin, and on the 28th, 1,500 more. On the 30th, we gave 2,000 making 5,000 in in all. At the time I saw him he was slightly cyanosed, apathetic and breathing with such difficulty, that all agreed that something radical was necessary to relieve him. I introduced an intubation tube, assisted by Drs. Mullally, Barbot and Mitchell, and in a few minutes the child was resting comfortably.

On December 4th, the tube was removed and the child made an uninterrupted recovery.

The history of these two cases suggests the following remarks on intubation, and on membranous or diphtheritic laryngitis: the former is a somewhat unusual procedure up to this time, in this state and I believe the latter is a particularly dangerous and fatal type of diphtheria, but essentially at first a local lesion of the throat.

In malignant types the septic infection is so violent that the patient usually succumbs before laryngeal stenosis can develop. In laryngeal diphtheria the tendency to death is largely due to the formation of a membrane in the larynx, and not to the toxaemia produced by the activities of the bacilli.

For this reason early operation saves a larger proportion of cases and measures for the relief of the stenosis should not be delayed until the vitality is depressed by deficient oxygenation, prolonged dyspnœa, and persistent blood poisoning.

Great pyrexia is often not a marked feature of diphtheria; the grave toxæmia producing rather symptoms of profound depression and a low temperature.

Invasion of the larynx is evidenced by hoarseness, aphonia, a feeble rapid pulse, and a croupy sort of cough. These symptoms in children, associated with previous malaise, and perhaps faucial lesions should excite grave apprehensions.

The quality or unity of membranous croup or laryngitis and diphtheritic laryngitis is still a problem for discussion; from a pathological standpoint there is little or no difference; the difference in etiology depends on the presence or absence of the Klebs Laffler bacillus.

The clinical history of the two diseases is almost indentical, and the prognosis in each equally serious; the diagnosis is made only by a microscopical examination of the culture developed on a medium of blood serum, by smearing it with some of the membranous secretion.

Where doubt exists as to the character of the membrane, it is the safest plan to consider it diphtheritic, and treat it as such.

When in the course of a diphtheritic or membranous laryngitis dyspnœic symptoms become threatening, we have two resources at our command, intubation and tracheotomy.

The indications for each are the same. The latter is more apt to be followed by broñcho-pneumonia, on account of the loss of nasal respiration. It is a surgical operation, as a rule, requiring an anesthetic, and the probability of death under any mode of treatment is so great that the physician may hesitate to do what may be considered by the parents as the cause of death.

On the other hand a tracheotomy tube does not disturb deglutition; it cannot be coughed up, and, if obstracted, it can be removed temporarily and cleansed.

Intubation, however, gives a much lower mortality than tracheotomy, particularly in children under six, and the only objections to it are that the tube may be coughed up in the absence of the physician, and that it interferes with swallowing, and thus disturbs the necessary nutritive functions.

It was successfully revived by Dr. O'Dwyer of New York, in 1880, and since then his tubes have been often modified and somewhat improved upon.

Intubation is not difficult, for the laryngologist especially, but one needs considerable practice in order to be reasonably sure and confident of success. It requires manual dexterity, and self control, as the circumstances under which it is done are at best trying.

The only means of acquiring the necessary proficiency is constant practice on the infantcadaver.

Tracheotomy is an easier operation.

How long to leave the tube in is a question often difficult to decide. If we concede the facts that the exfoliation or absorption of the membrane occurs generally in six to ten days, and that the larynx has probably been involved three or four days before the gravity of the symptoms necessitate operation, then we judge it best to remove the tube at the end of the fifth day—being guided, however, by the disappearance of the faucial membrane, of the general depression and of the feeble pulse, as well as by a distinct appearance of convalescence.

I have not undertaken to quote statistics showing the mortality in cases of laryngeal diphtheria before and since the introduc-

tion of antitoxin, or before and since the introduction of intubation.

Clinical experience has shown beyond a doubt that the antitoxin checks the progress of the membrane, that fewer cases show severe laryngeal obstruction and that more recover without the necessity for operation; but it shows as well, that the death rate in those cases requiring and receiving intubation is strikingly less than before its introduction and general use.

At the present time intubation has practically superceded tracheotomy for the relief of grave dyspnœa due to diphtheritic or membranous laryngitis in young children, and it deservedly ranks among the greatest inventions of the nineteenth century.

Cerebral Hemorrhage.

By James H. Farber, M.D., Dayton, Ohio.

I respectfully submit the following very interesting history of brain lesions occurring to my father Ben. T. Farber, of Xenia, Ohio, which eventually caused his death Dec. 22, 1901.

Father German-Scotch Decent. At death age 77 weight 190, height 5 feet 7 inches. Always well nourished. Best weight 220 last 20 years has weighted between 185 and 195 pounds. Always a hard worker, the hardest kind of hard labor, *out door*. up to 58 years of age. Since which time 20 years he has not done so much hard work, although leading an active life. Never sick except ordinary complaints, two attacks of malarial fever, intervals between attacks, 10 years. Each attack being acute, and terminating in two weeks. No syphilis, tubercle, heart, or kidney trouble. Pulse always slow, full, regular, quiet. Average 54 per mintue for many years. Pulse not accelerated on active exercise in proportion to other faster pulses.

Bowels always regular, habits good, in fact he was a classic picture of perfect robust health. His father died at 58 apoplexy two brothers and his mother and grandfather died suddenly from same cause.

The radial arteries were soft compressible, and showed no signs of atheroma up until 6 months before his death.

Nov. 26, 1896 on arising that morning he complained of slight dizziness, left side, leg more particularly seemed weak, arm slightly numb. This weakness and numbness of extremities lasted 3 or 4 days. Some vertigo in mornings for a week. The unsteadiness passed away in a few days entirely. Even on same day of these symptoms the grip of the hand was steady, firm, and powerful. No ataxic symptoms, no aphasia, no motor disturbance, after first rising in the morning. No fever pulse 54. No mental features except alarm on account of dizziness, and dread of impending trouble.

Urine normal, quantity and contents. From this time nightly, for 8 months about 4 o,clock in the morning he would awaken in a perspiration, not profuse but enough to make him very uncomfortable.

Jan. 31, 1897 ten weeks after first symptoms above noted, had acute coryza, coughing and sneezing all day. Read newspaper most all day, dozing at intervals. About 5 o'clock in the evening after arousing from a slight doze, noticed dimness of vision; unable to read, seemed, confused, great dread, and forebording, of impending trouble. Good thermometer showed no elevation, or depression of temperature. Head not markedly warm. Pulse 60 highest I ever knew except in fever. Careful examination showed following conditions:

No ataxia, no aphasia, no paralysis: Standing with no difficulty. Eyes open or closed, walking firmly and decisively, perfect control of all movements of face, tongue, eyes, body, limbs, bowels and bladder. Grip of both hands powerful and steady. Vision of eyes which I tested from time to time, in the several years preceding, was both eyes 20-20 with a plus 1-50 D.S. So that he was doubtless a hypermetrope to a slight degree. Immediately after lesion—i.e., within 24 hours the vision of both eyes was reduced to 6-15 increased to about 19-20, by the 1-50 d.s., corrected noted. Opthalmoscope showed no changes then or since. Perimeter showed almost one half of each retina not responsive. Pupils were not dilated and reacted to light from whatever point. The blind sides of the retina were the right half of each eye i.e. The left fields were deficient, therefore objects to the left could not be seen at all or but dimly. He could not read a newspaper accurately, because looking to the left for a following line he would loose his place.

He complained afterwards i.e. A few days after the lesion, of a peppery feeling in the tongue, and lips, and a numbness of lips, Sense of taste not impared.

Two years after, his sight was better, the perimeter showed that the blind fields are smaller, that the scotoma is a quadrant, the lower right quadrant of the retina both eyes, the dimness of vision was more of an indistinctness of outline and, it is possible the improvement has been somewhat a matter of education, i.e., of the sight to the condition.

On account of the simplicity of the symptoms a location of the lesion is fairly easily made, and is supposed to be in the right

occipital region, near the calcarine fissure in or close to the cuneus. As to the cause or the lesion itself, it may have been a hemorrhage or a thrombus.

Opinion is divided and an absolute differential diagnosis could not be made during life.

The mental state was good, not any time did it seem to be impaired, to the slightest degree, on any matter of business during the two years following, but memory for recent events, is not very good, yet not bad, and doubtless was influenced very little by the lesion.

The treatment pursued for a time was strychina–1–30–three times a day, calomel–1 gr every hour until bowels moved, this once a week. Potassium iodide, 10 gr three times a day.

This treatment was kept up for about one month when he gradually quit all medication and he did not seem any worse apparently on that account. One and one-half years after the attack of hemianopsia he was becoming more feeble, did not walk steadily except with a cane and did not arise to his feet surely and promptly. I did not attribute this weakness so much to the lesion; as I did to increasing age and influence of the mind, he having thought much of his condition and its possible dread future.

There was great loss of ambition, a tendency to talkativeness and relating stories over and over again, even on the same occasion. Had occasional attacks of vertigo, several times nearly falling to the ground, more vertigo on arising from bed or chair.

Jan. 2 1900, one month less than two years from the loss of sight, he attempted to get out of bed to a vessel, said he had his right knee on the floor the left hand and leg extended, and right hand on the edge of bed, when he became slightly dizzy and fell face down, arms extended, and could not get up, while he could move his left arm and leg, yet they felt uncertain to him. He called for assistance, and I saw him within a few minutes. I assisted him into bed and a few minutes after, dressed him and helped him down stairs. He was able to walk with my support, he could move arm and leg. He sat down to the breakfast table and ate some, but within fifteen minutes after sitting down, the left arm and leg were totally paralyzed; the back and the neck were rigid and painful when moved. He was placed in bed and head elevated, but he seemed so uncomfortable and complained so much, that he was permitted to have the head lower. There was not absolute loss of consciousness, but he seemed dazed, some what mixed in mind. Left leg from knee down, foot and hand were œdematous commencing in forty-eight hours, and painful and he complained much of pain in the shoulder and neck.

The fingers of left hand became flexed, not extremely nor rigidly, but assumed flexion for the balance of life when at ease. At the end of three weeks he had some slight movement of the fingers and toes and after massage exercise and faradism for six weeks improved quite rapidly; there was continued and uninterrupted gain in control and fairly good use was eventually had of both leg and arm; slight sores developed constantly for some weeks. For eight weeks he suffered pain at shoulder, probably due to position in bed, He complained also of a severe gnawing pain in the left heel, as he expressed it, like being chewed by a dog or bear, this sensation lasting about six or eight weeks. He laid flat on his back; hiccoughed a great deal. He was taken up from bed daily, after first three days and placed in a chair and after three months he could walk about with a cane, very falteringly, however, and always had to have assistance in rising to his feet; could not dress himself or button his clothing, more on account of indifference of mind than from condition of hand. He grasped objects tightly with left hand and it was difficult for him to let go, this difficulty in letting go became less in time, but never entirely relieved. In walking he leaned to the left and forward and could not be induced either to straighten himself or lean toward the sound (right) side. He had now developed a tendency to cry on sight of strangers and frequently from his own thought of his condition and was badly broken up generally; mind seemed good and talked rationally on all subjects, laughed easily and heartily, perhaps sometimes on little provocation; memory good and accurate for past, not so good on recent events. Ate well, bowels regular, slept well. Knew when his bowels and bladder needed emptying but had to be waited on promptly; urine rather slow in coming at times and dribbled some. For a few days after paralysis, high colored, strongly ammoniacal.

April 1st.—Three months after, on retiring at night, tossed about, muttered, tried to talk, not delirious nor unconscious; then talked a few words again, mumbled, pupils slightly dilated, pulse sixty, temperature normal, head slightly warm and moist; gave sleeping draught and he slept soundly.

In morning April 2nd, could talk all right; complained of burning sensation in the back, the night before. Began to get more and more feeble; could walk, but required some assistance. Bowels and

bladder as before, mentally seemed the same but relapses into more or less indifference; not so talkative as before, some loss of ability to direct energies and to concentrate. Mind does not wander, still laughs and cries easily. Complains of pain in "leaders" of neck, arm and leg.

December, 10th, 1900—A somewhat similar attack to the one in April. More drowsy for a few days, no further symptoms. March 24th, 1901, had been sitting up all day, was about to put him to bed, when it was found that he was paralyzed on the right side, arm and leg completely. He had slept some, while sitting up and the paralysis came on in sleep; tongue thick, that is, speech, fever 100, head hot, pulse sixty-five, breathing frequent, twenty-four to twenty-six times to the minute, interrupted, somewhat on cheyne stokes order, not characteristic, became semi-unconscious: pupils not affected, if so contracted. Swallowed without difficulty.

March 25th, better breathing, good pulse and temperature normal, ate heartily. Bed sores appeared frequently, but easily and quickly healed by relieving from pressure. Sores as before were on buttock 1 1-2 inches from anus. Each side and about on same level: They arose first as large blisters like a burn; perhaps 1 inch long and 1-2 inch wide; break in 24 hours and leave a raw spot. Began now to fall in attention to things, more anxous for constant attendance, mind getting more indifferent, less tendency to talk or laugh, still cried easily, could be amused and made to laugh, serious in thought, anxious in expression of countanance, distressed at his condition. Remembered past occurences well, slept well but breathing heavy, sometimes stertorous, sometimes deep, again shallow and at times interrupted, breathing eight to twelve times in thirty seconds; sometimes characteristic Cheneye Stokes; his breathing phenomena were only noticed at night or when asleep or unconscious.

About every two weeks he would have attacks of confusion and at night would notice heavy breathing: would also have a degree of fever and head be hot for a day. Sunday evening, December 1st, suddenly stopped talking began to mumble could not talk became semi-unconscious, was put to bed, temperature 100 1-2, puse 60, profoundly unconscious in two hours. The tongue seemed to be all that was paralyzed. Cheyne Stokes breathing, body moist. On the evening of December 2nd, temperature and pulse normal, reflex of eyelids, pupils normal, apparently recognized family, could not talk, difficult though not impossible to swallow. December 3d, same; 4th, laughed some at funny story and cried over his condition because he could not talk; 5th, profoundly unconcious most all of the time; 6th, and 7th, same, temperature 99 1-2 pulse 60; 8th, seemed better, semi-concious, opened eyes, but would relapse again into stupor Cheyne Stokes breathing and again fairly good, but mostly shallow and interupted. This condition remained to time of death.

Saturday, December 21st, left leg became black at toes, leg purplish motted to just above the knee, right leg not much but some, pulse in evening not to be counted at wrist or neck. Sunday, December 22nd, no pulse all day, heart giving only a 1-2 beat, respiration interupted and cheyne stokes, 6 p. m. respiration suddenly changed to continuous with great rapidity, 62 to minute, shallow and pumping, was raised to semi-sitting position. Respiration gradually reduced in frequency to 47 per minute in 1 1-2 hours then gradually less and less until stopped at 8:53 p. m.

The radial arteries were soft and compressible up to the last 6 months of illness, when they gradually became harder and calcareous and at the time of death were felt as hard rounded cords. The right arm and fingers recovered fairly well from the paralysis but the leg remained paralyzed to the end. The last 24 hours of his life the entire body was relaxed, all the stiffness gave way in the fingers and all the joints were freely flexible.

Last 3 days of his life he took only a little nourishment; egg beaten up in milk and fed carefully; mouth and throat were moistened frequently. Bowels moved with difficulty—only two or three times a week in any quantity, although gave daily enemas, no purgatives, bladder move sufficiently. For past 10 months the bladder and bowels were emptied without his giving notice, although no dribbling of urine at any time. Complained of little pain throughout except occasionally in back of head in early seizure and the muscular pain spoken of. After first treatment by medicine as given above he received none at all except at the time of acute attacks for a few days, when he was given the triple bromides—five grains each, ice bag to head.

In these cases you are at a loss what course to pursue in many conditions, which the family must face. It seems best to give them almost complete rest, yet to confine them to bed is not necessary, nevertheless any exercise or strain may produce sudden hemorrhage with many complications. In this case he was taken up daily throughout his illness, except for a day or two following acute attackis and twice a week even when he was profoundly unconcious, more in this case to air and freshen the bed. A half

feather bed coming to the hips was placed upon a good mattress. Rubber clothing or sheets placed over both and over these old blankets, towels or sheets. Whenever sores appeared and they were coming almost constantly they were bathed with alcohol dried and dusted with fullers earth and all pressure taken off by placing sore over a ring pad made out of a mass of cheap cotton, which was much better than ether muslin stuffed rings or rubber: the rubber seemed to make the parts more tender. He was kept in good condition and never had a sore to spread, or be delayed in healing.

I devised an apparatus for raising him out of bed which served the purpose admirably. Description follows 3 girths made from canvas duck, which is used for girths by saddlers.

The top girth went under arm pits and buckled tightly over chest; middle girth about over the navel, lower girth 1-3 the way between hip and knee joint. these 3 girths connected along back by 2 bands. A long loop strap about 2 1-2 feet was buckeled on the hip girth and a short loop strap abnut six inches buckeled on the chest girth, these two loop straps were caught on a hook attached to a block and tackle, which were securely fastened to a clevis in the ceiling, which slipped over a joist and bolted above. The block and tackle was fitted with a locking device and all was perfectly safe. A ten year old boy could adjust the straps and lift him out of bed with ease. The long and short loop straps raised him to a sitting position nearly and he could be lowered to a chair with ease. Through this it was possible to prevent disarrangement of bed, and he was handled easier and with greater comfort than by a number of persons. The cost of the apparatus was about $10.00 placed in position. To adjust the harness, he was rolled on his side and the harness spread, buckles rolled up then he was rolled back on to the harness. After putting him in bed the buckles were rolled up to a point under him, then he was rolled on his side again, thus leaving the harness free. The harness was left on him when sitting up, but was loosened. Invalid beds were used but were not a success, they were more of a make shift than a luxury. It is difficult to have comfort with them and we tried several only to return to the bed as described. It is difficult to have a movement from the bowels when sitting on a chair or lying on a bed and we found it easier for him to turn on his side when he wanted to have a movement of the bowels, but frequently we did not know when they moved, and of course for a short time it remained in the bed, but never more than a few minutes. Clothes were always promptly changed, and he was washed and powdered and kept dry.

There was never retention by the bladder but it was constantly looked for and in case of doubt was catheterized on several occasions, practically the treatment was careful nursing and little medication. He was permitted to eat anything we ate, or he desired up until his last period of unconsciousness. Hot water bottles and rubbing were used for the œdema of the legs, which caused him much pain at times.

His false teeth of which he had an upper and lower set were carefully cleaned daily and he kept them in his mouth most of the time until the last three weeks.

The patellar reflet was very much exaggerated in both limbs and ankle clonus was marked after the paralysis.

Mymetritis.

Ernest H. Rawls, M.D.

It is quite proper that the greatest of stress should be placed on this subject; first, because of its great frequency; and, second, on account of the great number of evils attending, and in many cases remaining, either transitory or permanent, after the cause has been removed; and, lastly, because it so often is the lot of the general practitioner to treat it.

I will define myometritis as an inflammation of the uterine tunica muscularis. There is still some dispute as to the tissues involved, some claiming that it is the muscular; others, the connective tissue; while Emmet holds that it is the veins. The majority of authorities, however, agree on the muscular or the connective tissue, or both.

It is by far the most common disease of women, probably ninety (90) per cent. of those coming to the clinics being affected. To more thoroughly and more readily arrive at the cause of this frequency, and the etiology of the disease, let us turn for a few moments to uterine anatomy. The uterus has three coats or tunics, viz: Tunica Serosa, or Perimetrium; Tunica Muscularis, or Myometrium; and Tunica Mucosa, or Endo-metrium. As the names indicate, the tunics are composed of serous membrane, muscle, and mucous membrane. The endometrium and myometrium are in intimate contact, there being no intervening tissue. In many places the utricular glands of the former extend into the myometrium. There is no densely woven network of fibrous tissue placed between them, as we find in the tractus intestinalis, serving as a barrier against infectious micro-organisms. When once they have

gained entrance to the vessels, or when lodged on the endometrium, the way for them is clear. There is no breastwork, as it were, to retard their destructive invasion. The submucosa of the stomach enables us to suck a snake bite with impunity. Such a structure in the uterus would lessen the occurrence of myometritis.

Women become infected during the menstrual period, during labor, abortion, masturbation, etc. At these times the uterus is undergoing rythmical contraction, the vessels are congested, the mouths of the utricular glands are dilated, and the os uteri is dilated. Infection having reached the os from the patient's clothes, the hands of the obstetrician or midwife (as is most frequent), finds lodgment on the endometrium, from whence it is carried by the dilated vessels and glands to the deeper tissues, where the congestion affords a most favorable medium for its growth, the muscular trauma adding to the already existing irritation. Lowered vitality (meaning lowered resistance) from infections, fevers, etc., acts as a predisposing cause.

There are two varieties of myometritis—the hypertrophic and the atrophic. Owing to the muscular trauma and infection, there is an increased supply of blood to the parts, and they are over-fed or over-nourished. This produces proliferation of the connective tissue cells, and finally the formation of new connective tissue or an hypertrophy.

The atrophic myometritis eventually follows the hypertrophic form. The gradually increasing connective tissue pushes out the musculas fibres, and, by contracting, diminishes the venous, arterial, and lymphatic circulation, leaving a hard glistening organ.

The diagnostic symptoms of myometritis are a stiff, indurated, and rigid uterus, feeling very similar to the hard contracted biceps muscle. Its mobility is limited by its own rigidity, and in many cases there is a marked displacement. Not only are the functions of the uterus interfered with, but also those of the organs anatomically and physiologically connected with it. There is painful menstruation because the increased congestion at this time in the already congested organ, compresses the nerve peripheries. There is pain in the head, back, and lower portion of the abdomen, due to reflex disturbances. There is anæmia, indigestion, malnutrition, and the whole train of evils directly traceable to this one disease.

The treatment consists of restoring the tissues as near to normal as possible, and in relieving the reflex disturbances. Little can be accomplished in the atrophic form, except to relieve pain. It is in the hypertrophic variety that we expect to accomplish the most. Look first to general conditions. If the patient is constipated, have her take half a teaspoonful of magnesium sulphate in a glass of water, on retiring. See that her kidneys act well. If not, have her drink at least two quarts of water every twenty-four hours. If anæmic, give some tonic, such as nux vomica, or iron is indicated. Give it in plenty of water, as the patient not only takes the tonic, but this will aid in getting her to drink the required amount of water. Give hot douches of from 12 to 16 quarts of water night and morning. If the occupation of the patient prohibits her sitting down for at least one hour after the morning douche, it had best be omitted entirely. Always have the patient take the douche in the reclining posture. The douche contracts the tissue and vessels, absorbs exudates, relieves pain, checks excessive secretions stimulates and cleanses the parts. You will usually get good results from this treatment in from 6 to 12 weeks. In some cases the glycerine tampon may be used to advantage, both for its hydroscopic effect and as a mechanical support, Surgical treatment is not so often indicated. It consists of careful dilation, currettment and application of caustics, or a hysterectomy.

In conclusion: Myometriiis is an inflammation of the myometrium, involving the muscular and connective tissues.

Pathology.—Hypsrtrophy and atrophy.

Etiology.—Predisposing causes.—Lowered vitality, labor, abortion, menstruation, masturbation, etc.

Exciting Causes. -Infection, muscular trauma.

Clinical Results. Disturbance of function of uterus and of organs anatomically and physiologically connected with it.

Symptoms.—Induration, stiffness, rigidity, limited mobility.

Treatment.—Hot douche, tampon, tonics, drainage, operation.

I have based this paper upon clinical experience in the Charity Ward of the Illinois Medical College Hospital, and of the Mary Thompson Hospital, both of Chicago; and I am indebted to Dr. Byron Robinson for suggestions and review of this paper.

A Contribution to the Study of Fly-bone Typhoid Fever.*

By Robert Wilson, Jr., M.D.

The causation of typhoid fever and the mode of dissemination is an old and well

*Read before the South Carolina Medical Association, Spartanburg, S. C. April, 1902.

worn study, but the investigation which constitutes the subject of this paper was so instructive to me that I have deemed it worthy of presenting to this body.

In Jan. 1901, I visited Darlington, S. C., upon the invitation of the Mayor, for the purpose of determining, if possible, the cause of the prevalence of typhoid fever in that community, in order that appropriate measures might be adopted to check its further spread.

The circumstances were as follows: In Sept. 1898 a lady living on Cashua Ferry St. was seized with fever two days after returning from a visit to a neighboring town, where typhoid fever was prevailing. She continued ill for several weeks. No other case occurred until the following Spring, when a lady living a short distance off on the same street was stricked with a similar form of fever. One year later, in May 1900, an inmate of the house adjoining that in which the first case appeared was taken sick with the same type of fever, of which she died. Following this case six or seven others appeared in the course of the year, all on the same street and in the same block. One, indeed, occurred on a side street, but in a house adjoining one of the stricken houses in Cashua Ferry St., and may therefore be grouped with them. Two of these cases occurred in the same house in which the fever first appeared in 1898. In other quarters of the town the same remarkable limitation of cases to very restricted areas was observed. In one locality, for instance, a single house had been visited by fever of a typhoid type almost every year since 1896, and in 1898 a case had appeared in the adjoining house. In still a third locality a record was obtained in four cases occurring in three houses between July 1899 and July 1900.

There was a difference of opinion among the local physicians as to whether the disease was typhoid fever or malaria. All the clinical histories that were obtained appeared to indicate typhoid fever very clearly, but in order to remove all doubt, the serum test was made in five cases. One specimen of blood was obtained from the lady who had had fever in Sept. 1898, and one from a patient who had had fever in May 1900; one from a patient who had had fever in Nov. 1900; and two from patients who were ill at the time the examination was made. In four cases the results were positive to a marked degree. The negative result was the case of a lady who had had fever in Sept. 1898, a result which was to be expected in view of the time which had elapsed since her illness. There can be no doubt, therefore, that we were dealing with typhoid fever.

In order to find the solution of the problem, it will be necessary first to recall the possible sources of infection of typhoid fever, and then to apply our knowledge to this particular case. The ultimate sources from which this disease originates are the stools, urine, and sometimes the bronchial secretion of typhoid fever patients. The fecal discharges are the most important sources of typhoid bacilli. It is important to bear in mind that typhoid bacilli may be present in feces in the later as well as in the earlier stages of typhoid fever and that they may pass through the intestinal canal without occasioning any manifestations of disease, and therefore the discharges of those who are apparently in perfect health may at times be fraught with danger. Typhoid bacilli are likewise eliminated from the body in the urine, in which secretion they may persist long after the period of convalescence has set in. In cases where the pulmonary symptoms are marked typhoid bacilli may be found in the bronchial mucus, but this must be regarded as a very infrequent, though a possible source of infection.

The immediate sources of infection are articles of diet contaminated with fecal or urinary discharges, and of these the most important is water. Water may receive infected discharges directly or after the latter have percolated through the soil. The demonstration of typhoid bacilli in water is a matter of the greatest difficulty, and authentic reports of success are extremely rare. In laboratory experiments it has been found that typhoid bacilli live for a longer time when not associated with colon bacilli and other saprophytes, and it has therefore been generally believed that in natural sources of supply typhoid bacilli are crowded out of existance by the organisms of the colon group. The experiments of Rémy, however, indicate that typhoid bacilli do not disappear under these conditions as rapidly as has been thought, but on the contrary, may maintain their independent existance for an indefinite time. Both species, however, become so altered as to render recognition difficult. Typhoid bacilli, for example, after a time, may no longer exhibit the Gruber Durham phenomenon, and colon bacilli may lose their property of forming gas and indol. These results, if correct, furnish experimental confirmation of observations which from time to time have been recorded. Wescott traced 19 cases of typhoid fever to a sewage-polluted well. When the well was closed the epidemic ceased. Twenty months later when the well was re-opened, another case occurred, although in the meantime further contamination could probably be

excluded. During the Franco-Prussion War of 1870, typhoid fever prevailed among French prisoners detained in a certain garrison, the discharges from whom were thrown into pits without disinfection and covered with a layer of earth. In 1872 typhoid fever broke out among German soldiers occupying this garrison after using water from a well whose location rendered contamination from these pits probable. Klein has discovered that the addition of nitrates to sewage converted it from an unfavorable to a favorable medium for the growth of typhoid bacilli, which may explain the observation of Martin that typhoid bacilli will grow in polluted earth more readily than when it is unpolluted. Robertson found also that typhoid bacilli will live and multiply in soil. When the cold of winter suppressed their growth he was able by pouring bouillon upon the areas in which they had been sown to obtain an abundant growth as long as a year after planting.

Although typhoid bacilli die very quickly when dried it is probable that at times they may be blown through the air for short distances when not completely desiccated and falling upon food or drink find their way into the alimentary canal. It has been suggested also that when inhaled they may lodge upon the pharynx to be carried into the stomach with food or drink. The possibility of this mode of entrance is admitted.

After Tizzoni and Cattani, Uffelmann, and others showed that flies may at times be carriers of cholera bacilli. Celli demonstrated thas virulent typhoid bacilli may be found in the excrement of flies which have been feeding upon infected materials. Flies may likewise carry infected material on their feet. Reed, Vaugh and Shakespeare, in their exhaustive report on the "Origin and spread of Typhoid Fever in U. S. Military camps during the Spanish War of 1898" state that they found flies walking over the food of soldiers with lime clinging to their feet after this material had been scattered over the fecal matter in the latrines. Soiled clothing may likewise be a source of infection, either through the medium of flies, or directly in the case of those who, after handling it, neglect the necessary ablutions. Five cases of direct infection from clothing or patients came under my notice in the City Hospital at Charleston, S. C. in the summer of 1898.

In seeking the solution of the Darlington problem attention was naturally directed first to the water supply. The town is chiefly supplied with water from artesian wells, which are more thnn three hundred feet in depth. This water, a portion of which is stored in a tank before distribution, is used throughout the town for all purposes. In the yards of most of those who were, or who had been sick, there are driven wells about 25 feet deep, and in all instances at least 100 feet from the nearest privy. On one or two premises, however, on which typhoid fever had occurred, there are no wells, the only water used being artesian. The discharges from the first patient were thrown into a shallow pit from which the ground declined in a direction away from the well and opposite to that in which the disease spread. About a mile out side of the town is the dairy of Mr. E. who supplies a large number of the towns people with milk. Some of those who had typhoid fever used this milk, but others owned cows and had never had occasion to resort to Mr. E.'s milk. A sample of water was taken from the driven well, when present, on each lot on Cashua Ferry St., on which typhoid fever had occurred. One, for comparison, from a well on a lot that had been free from fever, one from the well at Mr. E.'s dairy, and seven of artesian water from the natural flow and from faucets in various parts of town. With the exception of the water from Mr. E.'s dairy, which showed evidence of fecal pollution, these samples were all pure. The well at the dairy was immediately alongside of the cow shed which was the probable source of the bacilli found in the water. The absence of an epidemic of typhoid fever among the consumers of Mr. E.'s milk, the occurrence of cases among some who had never used the milk, and the slow spread of the disease, certainly warrant us in excluding this source. From the nature of the case we need not in this instance consider the probability of dust borne contagion. On the other hand the conditions in Darlington are specially favorable to the transmission by flies. The privy system is used exclusively, and the privies are in every instance situated immediately alongside of the stable, the breeding places for flies, which everyone of whom enquiry was made assured me were most abundant. No effort is made to disinfect the dejecta. In more than one yard bits of soiled paper were observed to have blown from the privy, and in one case were traced to the very door-step of the house. Excluding, as we are able to do every other source of infection, and with every condition present for transmission by means of flies, no other conclusion is open to us. It may be open to doubt whether the second case was due directly to the first, and that the third bore the same relation to the second; but I have shown that typhoid bacilli may not only live in the soil, but

may retain their virulence for a longer time than intervened between these cases, so that the lapse of seven months in the one instance and of twelve months in the other does not affect argument. The singular restriction of the cases within a narrow area and the lack of intercourse with other infected localities would also indicate that this infected focus originated from the first case introduced.

Again, the statement that the dejecta were buried might seem at first glance to oppose the theory but the burial was not deep, and the bacilli could easily be brought within reach of flies by the washing away of the superficial layers of earth, by turning up of the soil, or in other ways.

The remaining case which occurred in the Spring, Autumn and Winter of 1900 offer no difficulties.

Skin Cancer.†

By W. P. Whittington, M.D., Asheville, N. C.

As the title of this paper indicates, we propose to discuss that class of malignant growths that have their origin in the skin. Being spread out in a thin layer over the entire body, and containing the openings from many of the sècreting and excreting glands; the majority of all carcinoma proceed from this organ; and it is here we have the best chance to study diagnose, and apply treatment.

It is here that we are able to recognize the new growth at a time so early, and in a stage so little advanced, that the chances of successful treatment are much greater than when they are hidden away in the interior of the body.

The most frequent situation of skin cancer is on the face.

The cause of cancer is not yet definitely determined, but is said to be either diathetic, embryological or parasitic. While it appears that cancer is more common in certain families than others, it is reasonable to suppose that they at least inherit a diathesis.

Most cancers have an embryonic character of development, and at the same time we may say, that both the above facts or conditions, may be due to a parasite, which gains entrance into a field which is naturally fertile, or has become so by some vitiated condition or cause operating on the healthy cells in such a way as render them more easily penetrated. Be this as it may, the question of etiology is not satisfactorily settled, and we must still deal with the existing conditions, and continue our work along the lines which seem to have given the best results, until we get more definite evidence as to the real cause.

We all know very well, that skin cancers usually have a slow and insidious beginning; that while many commence in the apparently normal skin, they often originate in abdnormal structures that were considered innnocent, and are almost unnoticed; for instance the wart, naevus or wen, that has been carried by its owner for years; or a sylphilitic scar, or a lupoid cicatrix that marks the site of a long extinct process.

It is an easy matter for the experienced eye to recognize the transition from innocent to malignant growth. The change from homologus to heterologus hyperplasia, the sign manual of cancer.

When thus early recognized, the destruction of the cancerous growth is comparatively easy, but when left to itself, as it too frequently is, it soon passes beyond the reach of therapeutic measures.

Of all exciting causes, we have mentioned locality, climate, soil, general hygenic conditions, irritation, senility, etc.

D'Archy, Power and Wells, have collected a series of cases in which several deaths from carcinoma have occurred in a short time in the same house, In one of them three persons of no blood relation, occupying the same bed-room at different periods during nine years, died of carcinama. Shattock and Cooper give simular experiences.

In such cases, we would think there must be at least some persistant local, infecting cause. Bad hygenic condition of living in a damp, cold climate, or whatever tends to lower the vitality and resisting power of the skin and tissue cells, increase their tendency to degenerative changes. Irritation seems to play a very important role in the exciting cause of skin cancer; for instance that produced by the pipe-stem on the lower lip, by the soot on the scrutum of the chimney-sweep, and laceration of the cervex uteri.

And as before mentioned, cancer very often begins in a wart, naevus pigmentary vascularity, ulcer or scar, from whatever cause, that have been scratched and irritated. We might conclude that the irritated lesions were the enterance gate for the parasite, bacillus, germ or infecting agent of whatever character. But of all the predisposing or exciting cases, the changes that occur in the integument, as old age comes on, is the most fruitful of cancer of the skin.

Of all persons who arrive at the age of senility, proably ten per cent die of carci-

†Read before the Buncombe County Medical Society, May 16, 1902.

noma in some part of the body, and those beginning very largely in the skin and mucous membrane. In senility, there is a wasting of the fibrous and elastic tissues, and an increased preponderance of glandular and vascular tissue. This condition, with possiblg blood changes, very greatly favor the development of cancer in the aged. Those warts, pigmentations and excrescences that have remained as harmless blemishes in youth and early manhood, will in old age, on the slightest irritation, or without any known cause, take on a rapid and malignant development. The early diagnosis is probably the most important thing in the consideration of cancer, as upon this very largely depends its successful treatment.

The usual division or classification of skin cancer includes scirrus, or carcinoma cutis, superficial epithelioma or rodent ulcer, deep infiltrating epithelioma, papillary fungating epithelioma, and Pagets disease. The true scirrus usually occurs in conjunction with advanced cancerous disease of internal organs, or in post-operative cicatrics, usually of breast cancer. The broad, smooth, glistening nodules, or small tubercles, either flat and subcutaneous, or raised and projecting; the dull brownish, reddish or violacious color, and the gradual growth and colescence into larger plates, and indurated masses are quite characteristic.

The rodent ulcer begins as a small, painless induration, which very slowly grows into a characteristic ulcer. From the beginning the nodule shows the distinctive features, due to the accumulation of epithelial cell mass, in the deeper layers of the cutis. They are hard and cartilaginous, with a waxy appearance and dialated vessels running over the surface.

When ulceration has set in the margins of the loss of tissue show the character of the originial lesion. The rodent may be confounded with superficial serpiginous syphiloderm, but the latter develops and breaks down more rapidly, and is often preceeded or accompanied by other evidences of syphilis, and may be made to disappear by appropriate specific treatment. Rodent may appear in an ordinary wart, which is known by its itching and bleeding on slight irritation, and finally induration around its surface. The deep or infiltrating epithelioma begins as one or more deep-seated, split-pea tubercles of hard consistency. As it grows into a globular tumor or patch, the surface assumes a waxy, vascular appearance. This finally ulcerates, giving a craterform appearance, with reddish, purpleish and sometimes granular base. The secretion is viscid and scanty; the edges everted and raised with marked infiltration under and around it. Its growth is slow, but faster than the more superficial form.

Syphilitic lesions are somewhat softer, less vascular, occur often in younger persons, and yield to specific treatment. It may be known from lupus vulgaris, which usully begins in youth and rarely after the thirty-fifth year, epithelioma rarely before. The elementary lesions in lupus are multiple, more diffuse, and consist of soft, brown, semitranslucent, apple-jelley paupules, with no dense, firm, indurated wall surrounding the ulceration.

Papillary or fungating epithelioma appears as a raspberry, or cauliflower; vascular, easily-bleeding growth, of a bright, florid color. It is usually covered with foul-smelling, viscid secretion, but may be dry and yellow on the surface. Breaking down soon occurs, and the ulceration is very much like the deep-seated form above discribed. It is rather rapid form of the disease, and may occur around the genitals and on the mucosa.

It is important to differentiate it from the ordinary condyloma, which is often difficult in its early stages. The appearance of of suspscicious induration at the base and margins of the growth, the presence of ulceration, and the slow and obstinate extension of the mas, and the fact that condyloma are apt to be more numerous, are the main points that enable us to make a diognosis.

Pagets dieease has only of late years, been recognized as a variety of epithelioma. It occurs in elderly women, and is accompanied by burning and itching. It may exist for a number or years before developing into one of the other forms of carcinoma It differs from exema in its location, it chronicalty and its extreme obstinacy to treatment.

Having made a diognosis of cancer of the skin of any one of the aboves classes, it is the duty of the physician to proceed at once, and actively, in the prosecution of such method of treatment as seems best to suit the individual case.

Some of the methods of treatment that have been, and are still being persued, are excision by the knife or curette, destruction by caussics, the injection of alcohol, chemicals and serums, the actual, thermo, and panqulin cautery, electrolysis, and lastly, the application of the X ray.

I do not propose to enter into the minute discussion of these various methods, but only wish to speak of those which have proven of real merit, and bid fair to do most good in the amelioration and cure of this dreadful disease.

In that class of cases where the growth is situated on the margin of the lips or eye-

lids, where caustics could not be used without endangering the life of the patient by absorption of poisons, or destruction of delicate structures, or where large vessels might be destroyed, causing dangerous or fatal hemorage; or where the cheeks are involved so that the destruction of tissue would leave un opening, the knife is undoubtedly the best method. In such cases the diseased tissue should be removed as thoroughly as possible under asceptic methods, with the hope of getting anion by first intention. In this same class of cases, where the the patient from fear, prejudice or other reasons, refuses to submit to surgical interference, the application of electricity by the X ray offers the best method of treatment.

While this method of treatment has not been used long enough to be thoroughly established, it has given very flattering results in the hands of such men as William J. Morton, of New York, Francis H. Williams, of Boston, W. B. Cokey, A. B. Johnston, E. R. Fisk, Chas. W. Allen, Percy Turner and other leading therapeautists, all over the country. This treatment is, in my opinion, only to be chosen where the case is not suitable for caustic or surgical treatment, or where the patient refuses to submit to oiher treatment. The objection to this treatment is the length of time required for its application. The treatment by serums and chemical injections has not given the results that have been hoped for, and has been almost entirely abandoned by many of the most scientific advocates as W. B. Coley, and others.

I wish to speak more particularly of the treatment by caustics. I believe that nine-tenths, of all skin cancer, if taken early, can be quickly and permanently cured by proper application of some of the caustics. Those most commonly in use are the pyrogalic, sulfuric and nitric acids, chloride of zinc, caustic, potash and arsenic, iron epithelioma of the lipleaustic potash is perhaps, the best of the caustics. Liquor potassea may be successfully used by hyperdermic injections of one minim does into epitheliomata of the buccal mucas membrane. When applied to epithelioma of the lip, as much of the disease should be destroyed as possible, not to involve too much of the normal tissue. This should be repeated as often as necessary to destroy diseased and sloughing tissue, when the wound will heal by granulation, leaving a nice, healthy cicatrix.

But by far, the best and most effectual of all the caustics, is arsenic, either alone or combined with chloride of zinc, bichoride of murcury, or other chemicals, according to the nature, location and extent of the disease to be attacked. Besides being effectually destructive to the diseased tissues with which it comes in direct contact, it also causes a halo of inflamation in a large surrounding area, which seems to destroy the pathollogical conditions without impairing the healthy tissues. The arsenic is best applied as a paste directly to the diseased surface. If there is much diseased tissue forming thick crust or large masses of partly broken-down tissue, this should be removed with the curette before applying the paste. After the hemorrhage resulting from the use of the curette has ceased, and the surface made comparatively clean and dry, the paste should be applyed on a piece of cotton or lint, and secured by an adhesive strip or bandage, for from twelve to forty-eight hours,usually twenty-four hours.

When the dressing is removed, the diseased tissue will be black and necrosed surrounded by an area of inflamed and swolen tissue. A linseed-meal poultice should now be applied, until the slought seperates. If there remains any hard nodular, cancerious tissue, the plaster should be used as before, perhaps using a somewhat weaker compound, as the nature of the case indicates. When this slough is seperated as before and all diseased tissue is removed, as evidenced by a smooth, healthy surface and base, the lesion should be permitted to heal under aseptic methods. All small and superficial growths can be destroyed by a single application of the paste, but larger areas, where the pathological condition extends deeper into the structure, it would be better to make two, or even three applications.

I submit a report of five cases as examples, which have covered a period of one to seven years, without a single recurrence. No. 1—Miss L., age thirty-six, medium build, swarthy complexion, fairly good physical condition; father died of typhoid fever in war between states; mother sixty-nine years old, and living at time of treatment, and had an epithelioma on nose and lower lid of right eye, which afterwards caused her death, she having refused treatment.

Miss. L., appplied for treatment for small tumor on left cheek, near nose, which was diagonosed papillary epithelioma. It was half inch at base, slightly pedunculated, and size of a small marble: very vascular, with a crust on the surface, from broken down area. It had been growing for about eight months. Treatment was by amputation, with scalped down below level of skin, which left small fabrinous lines, running in different directions in the tissues, with intervening, hard, pathological tissues.

The compound arsenic zinc and mercury plaster was applied and allowed to remain twenty-four hours, when it was removed and examined; same strength applied twenty-four hours longer. At the end of this time, there was a deep, broad escher, considerable redness and swelling etending around on the face to the lower eye-lid and nose. Linseed-meal poultices were applied for three days, when the scar seperrated leaving a healthy surface, which soon began to granulate and fill up. At the end of ten days it was completely healed, leaving a small, soft scar. Seven year have now elapsed and there is no evidence of recurrence.

Case No. 2—Mr. J., aged sixty-nine. epithelioma on back of right hand, was removed by surgeons in Michigan one year before, but had recured (about eigh moths) in the edge of the remaining cicatrix. Appeared as a hard, indurated, split-tea nodule, which broke down and began to spread by ulceration. At this time it was the size of a half-dime; with ulceration under a crust. Curatted out all loose or soft tissue and applied compound arsenic paste for twenty-four hours, followed by fresh plaster for twenty-four hours longer. Applied linseed poultice, as in number one, and followed with ointment of aristol in vasaline, (10 per cent.) and in ten days the sore was completely healed, with a nice, smooth scar, which remains well now, three years.

Case No. 3—Mrs. B., tall, lean, dark woman of sixty-five years, who had one brother to die of cancer of stomache. Superficial rodent ulcer on left cheek, near nose. Secreted an offensive, glarry discharge, which dried, forming a crust. These crusts pealed off at intervals. leaving a rough, raw and indurated surface, which soon became covered with a new crust. Curatted all soft tissue away and applied compound arsenic paste, and allowed it to remain twenty-four hours, applied fresh paste, which was removed in twenty-four, leaving large, flalt scar, very dark, and somewhat larger than the original ulcer. This seperated and healed nicely under treatment as above.

Case No. 4—about such a case as number three, in man of sixty-two. Which had been gradually getting worse for four years, and could not be healed by any means used. It occupied the beardy cheek below the right ear; this was treated as number three, and was perfectly well in ten days, and has remained so for two years.

Case No. 5—Mr. Mc., healthy farmer, sixty-five years of age, no history. Small papillary epthelioma of left cheek, same as number one, except smaller. Gave him considerable annoyance by itching, burning censation; was breaking down and bled easily on removing crust. It was thoroughly curetted, and arsenic paste applied for thirty-six hours. It was entirely well in ten days, and remains so, now more than one year.

Obstetric Report.

By J. M. Newbern, M.D., Washington, D. C.

Mary, race, negro, twenty-five years of age, native of Maryland, occupation, domestic; Residence, Washington, D. C. History: Multipare.

My attention was called to the case on the 10th of July, 1901. The patient did not remember when her last menstruation occurred, but thought it was on October 16th, 1900. Counting back three months and adding seven days would bring the time of confinement on July 23, 1901. As to the date of quickening, the patient did not feel it until in trimestra. She commenced to mentruate at the age of 18 and continued regularly every month until she became pregnant and gave birth to a child at the age of 20. She did not become pregnant again until four years later, when she gave birth to another, which, as she called it, "came too soon" and was dead.

In the first trimestra she had none of the sympathetic disturbances as nausea and vomiting, and her appetite was good. She noticed tingling sensations of the breast and enlargement of the grandular follicles around the nipple. There was no perceptible flattening of the abdomen in this trimestra, but in the second there was a gradual rising of the uterus in the abdominal cavity. As pregnancy advanced, during the third trimestra. her digestion became impaired, her feet swollen, and she experienced some difficulty in walking around with shoes on; also complained of heartburn, of about two weeks' duration.

Examination.

I had her collect the urine for 24 hours and examined it, finding the quantity ozs. L (increased) and the the constituents normal, with the exception of urea, which was diminished. This examination was kept up every three days until labor and the urine was found to be normal in its quantity and constituents.

I did not make a physical examination at this time, so I called the next day, the 11th of July, 1901, and made the following examination:

Pelvimetry

Distance between anterior superior iliac spines, 9·1 2 (23 c.m.).

Distance between the iliac crest, 10 1-2 inches, or 26 c.m.

External conjugate diameter, 8 inches, or 20 c.m.

I examined her heart and found it to be normal, then I palpated the abdomen as follows: The patient lying on her back near the side of the bed, with legs extended, I standing at her right side and facing her feet, placed one hand on each side of the abdomen, just above poupart's ligament, and gently pressed them down in the iliac region to the brim of the pelvis. My left hand sank deeper than the right, but soon the right hand met the irregular prominences which I took to be facial irregularities. My left hand came in contact with a hard, globular and nonfluctuating mass at the brim of the pelvis, easily recognized as the head of the child. On palpating the left side of the abdomen, with my left hand pressing down in the median line, I felt distinctly the dorsum of the child, pointing anteriorly. Towards the fundus, a little to the right of the median line, the soft parts of the breech were made out, and on the same side there was a good of "cyst-tension."

Auscultation

At a point midway between the umbilicus and center of poupart's ligament, on the left side, I placed the stethoscope, but nothing was heard. I then tried the opposite side at a similar point and heard a harsh blowing sound synchronous with the mother's pulse, called the uterine bruit. With a little pressure at this point, this blowing sound was inaudible. I tried the left side a little internal to the point first selected; then at a point little external, and heard a sound which I took to be the fetal heart sound.

Vaginal Examination.

After thoroughly washing and scrubbing my hands with soap and water and washing them in a bichloride solution, 1 to 1,000, and oiling them with carbolized vaseline, I inserted the index and middle fingers of my right hand into the vagina. With a little manipulation I inserted the index finger into the external os, which was not much dilated, and stretching it with the index finger I soon got the middle one in also. My fingers came in contact with right parietal bone, then pushing my hand farther backward I felt the segittal suture, tracing this suture forward I felt the posterior or small fontanelle. When this examination was over my diagnosis was vertex presentation, L. O. A. position.

Treatment Prior to Labor.

She still had heartburn, for which I gave sodii bicarbonas xx grs. after each meal. Her bowels were loose, and had been so for more than a week and for that condition I gave one pill three times a day, containing salol 1 gr., bismuth subnit, 1 gr., powd. opium 2-40 gr., powd. camphor 1-20 gr. 01. menth. pip. 1-40 gtt. Under this treatment she was relieved of heartburn, and the operation of the bowels reduced from four to five per day, to two.

I made examination of urine and its constituents were found to be the same as previously stated.

Her health generally was very good. I gave her instructions regarding diet and the amount of exercise to take, and to send for me if anything took place.

On the 21st of July, 1901, at 4 p. m., a message came that she was in labor. I responded promptly, and after scrubbing my hands with hot water and soap, and holding them in a solution of bichloride of mercury of 1 to 1,000 for a few minutes, I made a vaginal examination and found that the bag of waters had ruptured and that the water was coming from her; upon inquiry I found that she had been washing all day and in lifting a tub of water ruptured the membranes.

Vaginal Examination.

The same relative position and examiner was maintained in this case as before. Introducing my middle and index fingers of my right hand, they came in contact with the right parietal bone, then gradually pushing my fingers backward, the sagittal suture, in line of the right oblique diameter, was made out. Then passing the extremity of the index finger backward toward the right, the large fontanelle could not be made out. Following the suture anteriorly and to the left of patient, the small fontanelle could be felt, from which I concluded that I had *good flexion*.

The os uteri was dilated to about the size of 1-2 dollar; but she had not had and was not having any labor pains, so after remaining about an hour, I left for home.

Her bowels, as I stated previously, were loose and consequently there was no fecal matter in the rectum.

I called again at 6 p. m., and found her in the same condition as before, appearently resting easy and no pain. At 10 p. m., my assistant called and reported that she was not having any pain and was sleeping. He left word if pains should come to send for us.

Labor, First Stage.

We called at 8 a. m., on July 22nd, the patient was having some teasing pains, about 20 to 30 minutes apart and of short

duration. Observing antiseptic rules, I made a digital examination and found everything progressing normally. She stated that she passed her water often and that her bowels had operated. The pains gradually increased in frequency and severity. From the character of the pain, I thought it would be about 7 to 8 hours before the child would be born.

The amount of urine had not been recorded, though she said she passed about the same quantity as on the previous days —about 50 ozs. Her temperature registered 100 F., but thinking the slight rise due to excitement and worry, I did not give anything for it. I left my assistant there with instructions to send for me if pains increased. At 3 p. m., I got word that the patient was in the second stage of labor. I took a pair of obstetrical forceps—long bladed—bichloride tablets, fluid extract of ergot, needles and holders, silkworm gut, chloroform, ergotine, bobbin, Boracid acid, 2 per cent. solution of nitrate of silver, and sterilized cotton.

The bed and patient had been previously prepared, that is, an oilcloth over a dry sheet; this covered a blanket doubled and a sheet over this, and the nightgown of the patient had been tucked up under the patient's arms.

Leaving my case of instruments in the adjoining room, I went in, scrubbed my hands good in soap and water and soaked them in a bichloride solution of the strength of 1 to 1000 for five minutes, then I proceeded to make the digital examination, observing the same rules as before stated.

As the head descended to the floor of the pelvis, flexion being complete, the suboccito-bregmatic diameter of the child (3 1-4 inches, capable of an extension of 3-4.) The occiput engaged under the symphisis, then the pains increasing, the head was born by extension. Restitution following, the occiput rotated from right to left, toward the mother's left thigh; this mechanism verifing the diagnosis previously made—of vertex presentation and left occipito-anterior position.

The mucus was wiped from the child's mouth and face with a swab of steriled cotton, then the baby began to cry. My assistant placed his hands over the fundus of the uterus and I examined to see if the cord was wrapped around the child's neck, which was not the case. With one or two strong pains the entire body was expelled. After pulsation ceased in the cord, I set to work to tie it, which I did, first by milking it from the child, putting one ligature bobbin about 1 1-2 inches from the abdomen and another towards the placenta, about an inch from the former and then cut the cord between them. Then I put a drop of a 2 per cent. solution of nitrate of silver into each of the child's eyes, and wrapped it up snugly in a blanket and put it on its right side, to aid in the closure of the foramen ovale. The child, a boy, was turned over to the midwife for washing and dressing. I directed her to oil the child all over with vasaline and then to use soap and tepid water to clean it with.

Third Stage.

I relieved my assistant by putting my left hand over the fundus and with gentle pressure, after a rest of from 20 to 30 minutes, aided in the expulsion of the placenta. With my right hand I caught the placenta and by twisting it around, wound the membrane over it. My assistant then put his hand over the fundus while I examined the placenta to see that no pieces were retained. I found it intact. The genitalia were washed and examined to see if there were any lacerations, but none were found. The soiled bed-clothing was now removed, a sterilized pad placed over the perineum and vulva, abdominal binder made of unbleached muslin 18 inches wide was put on and the patient wrapped up in blankets and placed on her back in a comfortable position in bed.

The patient's temperature was 99, pulse 78. This completed the 3rd stage at 8:30 p. m., July 23, 1901.

I remained with the patient about an hour to see that no hemorrhage occurred, during which time the patient had slept some. The child was then put to her breast, but it would not draw the nipple. I directed the mother to continue this by putting the child to her breast every two hours. At 9:30 the mother and child were resting well, so I left.

July 24, 8:30 a. m., patient's temperature 98.8, pulse 75 per minute; at 4:30 p. m., temperature 98.6, pulse 70. The child's bowels had operated twice during the day and the mother had passed urine in the morning and evening, and amount normal.

July 25, temperature and pulse morning and evening normal. The bowels of patient had moved and copious. The amount of urine voided, normal. The child's bowels also operated three times.

July 26, temperature and pulse normal, also the movements of bowels of patient and child. The breast in good condition and a plenty of milk.

July 27, my assiatant called and reported that mother and child were getting on nicely.

July 28, no one called.

Her diet consisted of beef tea, animal and chicken broth, toast and crackers for the

first three days; after this time, I allowed more solid food, such as fresh meat, poultry, soft boiled eggs, white potatoes and rice.

On July 29, at 9:30 a. m., I got a message from the patient to come to see her, as she was bad off. I hurried off and found her rolling and tumbling in bed with intense pain in abdomen. Her temperature was 104, pulse 110 per minute. I made an examination and by palpation I found firm retraction of the uterus and that it was in its normal position. I inquired as to what she had been eating and doing on the previous day and learned that she had been eating pork and cabbage and was out late on the previous night drinking orange cider, etc. I also learned that she had a chill on the previous morning at 8:30, followed by fever, and at about 8:30 the same day I called had another chill. From the symptoms and her condition, I diagnosed the case as malarial fever the Quotidian type with indigestion. I moved her bowels by enemata and gave her one grain of calomel and one grain of sodii bicarbonas and directed her to take another dose at 9 p. m. I called at 9:30 p.m., and found her resting, her temperature was down to 99, pulse 75 per minute. I left 12 grs., of quinine for her to take at 5 a. m., on July 30, 10 grs. to take at 12 m., and 10 grs. to take at 7 p. m. I called at 9 p. m., her temperature was down to 98.5 and pulse to 70 per minute. I continued the treatment of quinine in gr. doses every two hours for a week. The chill did not return, the patient soon recovered and was up and well by the 12th day.

The child's cord was dressed regularly twice every day and on the 7th day it came off.

I visited the mother for a month to give directions concerning her diet and for the proper treatment of child.

On the 10th of August, the mother called my attention to the scaly condition of the child's head. I examined the child all over and found the eruption only on the head, which was more or less red, inflamed, thickened and scaly. From the appearance, I diagnosed the Eczema capitis. For this condition I ordered the mother to wash the head good with castile soap and warm water and to use a salve morning and evening:

Ung. Hydrarg. Nit.,	ʒss.
Ung. Zinci. Oxd. Bens.,	ʒi.

Under this treatment, the eruption gradually disappeared and at the end of two weeks the child was well.

At the end of six weeks the mother and child were well and free from all complications.

Relative Advantages of Vaginal and Abdominal Drainage.†

By A. E. Baker, M.D., Charleston, S. C.

Gentlemen, I deem this a most important subject for consideration in behalf of the patient; and the more it is investigated, the more rational it appears that the vaginal route is the proper source of drainage; that is, when the trouble is confined to the lower portion of the abdominal cavity. The laws of gravitatisn indicate this route. Conditions and complica.ions vary so much in abdominal work that it is impossible to adhere to either route regardless of what may confront you.

Some of the objections to abdominal drainage are as follows:

It is difficult to keep the wound aseptic and it affords ingress to pathogenic germs. It renders the abdomen weak, increasing the danger of ventral hernia. It endangers the formation of a sinus which will be long in closing—necessarily forcing the patient to remain in bed twice as long, which is depressing, to say nothing of the loss of time and expense—the latter, often of but little consequence to the doctor, but of much to the patient.

Abdominal drainage is acute necessary in many conditions above the pelvic brain; in fact, all indications for drainage in this portion of the abdomen should be done thorough this route, the median line, and even in some pelvic abscesses or any condition that will cause a widespread or a general purulent peritonitis, not only is it necessary to drain through the abdomen, but through each flank and especially the vagina. Free drainage from every source should be established.

It would not be unwise, should conditions warrant it, to have the gauze drainage extend from the incision in the abdonen down through the pelvis into Douglas' culde-sac, then into the vagina posterior to the os uteri—the gauze being in two pieces, an upper and a lower, in order that they may be removed without drainage to the patient.

Other conditions, such as large pus tubes, when all the neighboring sutures or fissures are infiltrated with inflammatory exudates to enucleate this mass and drain through the abdominal route would quite probably prove fatal to the patient, but if done through the vaginal route by puncturing the abscess, through an incision made posterior to the os and establishing thorough drainage, the patient's chances are good then latter, if necessary, the abdominal operation can be performed to break up

†Read before the South Carolina Medical Association, April 17, 1902.

adhesions to restore organs to normal positions, etc.

Before going further, let me impress upon you some of the important precautions in opening the vagina into Douglas' cul-de-sac and the different steps of the operation. First render the vaginal cavity and cervix aseptic. On the index finger introduce a long pair of sharp pointed scissors up to the point of puncture—plunging the scissors into the abscess in the direction of the axis of the pelvis withdraw the scissors open to enlarge the puncture, making an opening one or two inches wide. Then introduce finger making careful biniaunal palpation of the sac and surrounding structures with view of discovering and breaking into any secondary abscesses that may exist and which are often found. If necessary, the abscess cavity may be curetted and irrigated and finally packed with gauze.

The opening should not be made too much to one side for fear of wounding a ureter.

The rectum will escape injury if the point of the scissors is carried in the direction of the axis of the pelvis.

In pelvic abscesses drained by the vagina at times it is necessary to make an abdominal incision that the hand may be introduced into the abdominal cavity, to control uncertain conditions in the operation; as, when the abscess is not so clearly defined as to admit of operating by the vagina alone, or when upon opening the abdomen the adhesions are found so dense and widespread, that an anculation of the whole mass would be attended with imminent rush to life; or when the extremely weakened condition of the patient renders drainage safer than anculation.

It seems to me only wise and conservative to drain through this depending route, thereby producing no shock or unpairment to vitality of the patient.

However, should we find, after opening the abdomen that the structures can be outlined, and are found to be slightly movable an enuclation will always be possible; if, on the other hand, they are densely wedged in the posterior pelvis, and adhere to the pelvic walls, if frozen there, an anucleation ought never to be attempted; the abscess must then be avacuated by the vaginal route aided by one hand in the open abdomen.

In the ordinary ovaritomy and internal uterine suspension, at times we meet with dense adhesions caused by previous gonorrheal celluties ete. In breaking up these adhesions, the oozing of the blood is often sufficient to necessitate drainage. Again, the laws of nature direct us to the vaginal route, being the most depending source.

Extra—Uterine Pregnancy.

Some of the advantages of vaginal drainage are:

The tube and ovaries are both preserved.

By this avenue, the coagula, escaped membranes, placenta, and fetus, if found, are removed usually without opening the peritoneal cavity.

The vaginal method is free from danger if the operator is prepared to open the abdomen at once in case of unexpected hemorrhage.

It is quickly performed, consuming no time in making and closing the incision.

It avoids dealing with such a serious complication as intestinal adhesions.

To the contrary, some of the dangers of vaginal incisions are active uncontrollable hemorrhage from the sac.

The risk of an opening an adherent intestine or of puncturing rectum.

The possibility of the sac wall breaking down, and so opening an avenue for the infection of the peritoneal cavity.

At times patients are found in a weak, collapsed condition, suffering from shock, etc., in which laporotomy would hasten death, but by going in through the vagina, removing fetus, clots, etc., and establishing free drainage, the patient is saved.

Appendectomy.

L. B. Etheredge, M.D., Wagener, S. C.

Our brethren in the profession, who practice in rural districts, depend too much on Hospitals to do their major and minor surgery—Although we may not have all the necessary equipments; yet if we get the instruments of two or three country physicians, together, we can do a great deal in surgery. The following case may be of interest to the readers of your valuable journal.

On April 10th, my partner, Dr. M. S. Dautzler, was called to see a case of "Colic" (as the laiety expresses it,) he suspected appendicitis at once, and asked me to see the case with him, I went the same evening, and corroborated his statement. He had blistered McBurneys point, and used all external applications as well as internal remedies with no effect. We at once advised an operation, and on April 12th, we called in a neighboring physician Dr. A. D. Morgan and operated.

We followed the suggestions of DaCosta making an incision over McBurney's point about 2 inches long; on entering the abdominal cavity, we found that an appen-

dicular abscess had formed, and about 1 pint of pus and foecal matter was present —of course the appendix had sloughed, and nature in her wonderful way of working, had closed the aperture. The abscess cavity was thoroughly irrigated with five gallons of sterilized water, and the cavity packed with iodoform gauze, two stitches were taken on either side of the incision, though peritoneum, muscles and skin—the balance of aperture was left to drain. The patient survived the operation without shock and has entirely recovered in a country home of ordinary surroundings and no trained nurse. This operation is considered a very grave one in this country, for the simple reason that the patients are all sent to the hospital, and the distance is so far that the patients are in no condition to stand an operation after the fatigue of traveling. Will say in conclusion that our case was well marked; all the symptoms of an advance case of appendicitis being present, due to persistaut constipation and impacted fœcal matter.

The Preparation and Treatment of Surgical Abdominal Cases.

By Charles M. Rees, M.D Charleston, S.C.

The perfection in the preperation of the surroundings, including the operator and the assistants, in cases requiring operation in the abdominal cavity and of its contents, are so nearly complete and ideal, and the results obtained so marvellously good, in the hands of the experienced, that the abdominal cavity has come to be looked upon as a common field of operation.

With the beginner in the field of surgery the highest ambition is first to open the abdominal cavity, for some cause, or another, before claim can be made for his fitness to be recognized as a surgeon, having before him the statistics of low mortality, but failing to observe that these low figures of mortality have been obtained by long and intelligent observation, and large experience in the perfection of methods of operative skill.

In cases of doubtful diagnosis it is not very uncommon the hear the expression, "Open the abdomen; that can do no harm," but the result is many times disappointing and disastrous, to the patient and doctors alike. Again, we hear read, and read about, series of cases, covering unusual and grave complications, with the history and record of each case finished up' so invariably, with "an uninterrupted recovery," that the expression has grown almost tiresome. With recognition of the character of the peritoneum in its susceptibility to infection, and as a productive surface for the rapid development and increase of septic infection, probably largely dependent upon the rapidly lowered vitality and resistance to infection, which is increased by the length of time of exposure, and extent of peritoneal surface exposed, and again, remembering the peculiar liability to shock consequent upon injuries to the peritoneum, careful observers have worked so diligently to eliminate these dangers, that they have linked together a chain, which eommences when the operation is determined upon, and ends when the last piece of dressing has been applied. Neglect of any one portion of this chain, and careless application, it matter not how apparently small, will many times loose a case, or be directly the cause of complications and prolonged convalesence.

The chain of preparation is so complete, and nearly ideal, that it would seem as if a common plan of treatment might now be adopted for surgical abdominal cases. It is for this reason I have attempted to review this subject in part.

Presupposing the fitness of surgeons who do abdominal surgery to meet the gravest complications, I make no further reference to that portion of the subject.

Preparation of the Patient.

The importance of careful preparation of the patient, where the peritoneal cavity is to be invaded, cannot be over estimated. The better the general condition of the patient and of the digestive apparatus, and the more active the excretory organs, the better she will bear the anæsthetic and shock of the operation, and the less will be the disturbance following it; hence, the smoother the convalesence. Thorough preparation is necessary, therefore, not only for the safe administration of the anæsthetic and the comfort of the patient, but also to overcome intestinal distention, which retards, and, at times, seriously interferes with the operation. Unless immediate operation is demanded, it is most unwise to submit a patient to anæsthesia, and to an operation involving exposure of the peritoneal cavity, without sufficient preparation to secure activity of the intestinal tract, and of the liver and kidneys, as well. It is not sufficient to clear the bowels once with calomel and a saline cathartic, nor is the simple exclusion albumen and sugar from the urine all that is necessary. The *presence* of *bile* in the *urine*, which denotes *its absence* from the *intestinal tract* is often a more serious contraindication to the administration of an anæsthetic than the presence of albumin and sugar in the urine. When anæsthetic, especially ether is ad-

ministered to a patient whose urine is loaded with bile, there is always unusual disturbance of the respiration and circulation. The patient will breath badly, and cyanosis will suddenly occur most unexpectedly, and often great quantities of bile will be vomited, both during the administration of the anæsthetic and after it has been discontinued. In these cases there is always great disturbance of the stomach, for hours, or several days; accompanying this there is extreme intestinal distention which complicates convalesence. These cases are infected, undobtedly, from within, by absorption of infectious matter from the inactive, and partially paralyzed intestinal tract.

The heart and lungs should be carefully examined, when the case comes up for operation, and this should not be postponed until just before beginning the anæsthetic. Cases should be prepared beforehand to meet the demands upon the strength, consequent upon the operation and the use of an anæsthetic. In cases of long standing, whose strength has been wasted through extreme exhaustion, patients should be fortified before operation by stimulation, not trusting to the stimulation during the operation, when, likely, the power of reaction is lost. As a routine plan, of treatment, and recognizing the advantage of free evacuations from the bowels, within the first 12 to 24 hours after abdominal operation, I administer to these cases, when it can be tolerated, and in the majority of cases, there is no objection, usually, a half-hour before the patient is put on the table, ʒii to ʒiv, of a saturated solution of Epsom salts. This will usually produce free evacutations within 12 hours after the operation. In cases of extreme weakness, with rapid, irregular, and uncertain pulse. I have prepared patients for the operation by commencing three hours before with the administration of gr. 1-30 of strychnia, and fl3 II of alcoholic stimulant. These details neglected frequently destroy an operation, otherwise perfect in its detail and technique; and it is here, that, I wish, particularly, to call attention to the necessity of the preparation of the patient herself, which should be in keeding with the ideal methods of preventing infection by external causes.

Instruments.

In the use of instruments, I am of the belief, that, as few instruments as possible, should be used, these to be carefully selected, and yet so complete, as to meet every condition which may found in the abdomen, under any circumstances. A profusion of instruments about an operator, like too many hands, complicate and prolong an operation, and frequently hamper the operator.

The Incision.

The site should be carefully selected before beginning, and the length of the incision also carefully estimated in the mind. Much valuable time is lost in frequent and uncertain efforts to open the abdominal walls. The incision should be made quickly and rapidly, and of sufficient length at first. In length the incision should be as short as is compatible with the removal of what is sought for, or found, or what is to be repaired; but frequently, much valuable time is sacrificed in tugging at a growth, or in efforts to repair an injury, through an incision too small. There should be no hesitation in enlarging an incision to sufficient length to facilitate free, rapid, certain and careful work. I believe most thoroughly in careful, thorough, pains-taking work in the abdomen, hut have observed most precious time lost by efforts to see into the abdomen by stretching the incision with cumbersome and large retractors, and by efforts to examine into the abdomen by sight. What is done in the abdomen should generally be done by feel, and inspection by the eye of those parts only, which can be lifted out of the cavity for free inspection. Again, injury is frequently done with spone holding forceps, and prolonged effort to determine a bleeding point, or by the uncertainty of a properly applied ligature. An operation should be proceded with in order, from one portion to another, making sure of the bleeding points, which should be secured by a ligature, the ligiture cut short, dropped back into the cavity and the operator should proceed to another part.

The preference of ligatures, as between silk and cat gut is still an unsettled one, many men preferring cat gut to silk under most circumstances; still a fair proportion adhere to the silk sutures. Personally, I find nothing left to be desired, nor any inclination to change from the white twisted silk, sterilized, of a size which has been found by thoroughly testing the strength before the operation, to be strong enough for absolute safety.

Irrigation.

The irrigation of the abdominal cavity with a salt solution is indicated, particularly in those cases where pus has escaped into the cavity and been generally diffused over the peritoneal surfaces and bowels, and again, where extensive bowel adhesions have been separated, requiring prolonged exposure. Here the free application of large quantities of normal salt solution in the cavity, leaving a portion behind, seems

to have a good influence upon the strength and general condition of the patient.

Drainage.

The question of drainage through the abdominal incision is a large one, and one not yet entirely settled. The drain, however, should be used through the abdominal incision in all cases where an abscess cavity has been walled off from the general peritoneal cavity, as in appendicitis, or in extensive suppuration in the pelvis, and where the abscess cannot be reached and drained into the vagina. Drainage should also be used in wide-spread peritoneal suppuration, and where an intestine has been sutured, and there is doubt as to the accuracy, or ability of the tissues to hold. Again, gauze pack and drain for the purpose of controlling extensive oozing on raw fresh surfaces.

Closing the Abdominal Incision.

Several methods of closing have been adopted. None have been absolutely successful, nor entirely prevented the unfortunate sequelæ of abdominal hernia. The method, which, I believe, affords the best protection, and the most complete closure, and the one which I have generally pursued and adopted, is bringing together first the out peritoneal edges, securing them with a running, fine silk suture. The balance of the incision, above, can then be closed, either with silk or silkworm-gut sutures; and one of the most important steps in the operation is the proper closure of this incision. Muscular and skin sutures are passed through the muscles, fasciae, and skin, at a distance apart sufficient to absolutely close the incision from one end to the other.

Post-Operative Treatment.

In all cases, before leaving the table, and while still under the influence of an anaesthetic, it is best to administer in the rectum a quart of common salt solution. These cases get on with less distressing thirst afterwarns. In the shock which will sometimes follow an abdominal operation, under any circumstances, I have occasionally seen marked benefit from stimulation by strychnine and nitro-glycerine, and am under the impression, in cases requiring it and of an extreme degree, that the mistake is generally made of giving nitro-glycerine in too small doses. In a recent case, which I saw for my friend and associate, Dr. Cathcart, where shock was most profound, I administered nitro-glycerine in gr. 1.10 doses, with apparent marked improvement. In the after treatment in these cases the importance of catharsis within 36 hours afterwards is so generally recognized that if the bowels are not moved by the administration of the saturated solution of Epsom salts, above referred to, I frequently give doses of gr. 1, each, of calomel and soda, until grs. VIII to X have been given. Again, where we wish more rapid action and fail to secure it from cathartics administered by the mouth, or the cathartic there is objectionable, on account of its being rejected, the alum solution, given per rectum, in the proportion of alum ʒss to one pint of warm water, will usually stimulate the bowel and produce free evacuations. I have found good results from an enema, particularly in gaseous distension and inactive bowels, using Epsom salts, ʒii, Glycerine ʒii. Turpentine ʒss, in ʒxiv of warm water.

Recently I have been inclined to be more liberal in allowing water to patients after an abdominal operation, than I formerly was. In the majority of cases I have found the greatest relief can often be afforded to patients, without injury, by allowing a change of position within 24 to 30 hours after operation.

Intra-Cecal Papilloma Simultating Ap pendicitis. Removal—Recovery*

By W. W. Harper, M.D., Selma, Ala.

Mr. President and Fellow Members of the Medical Association of the State of Alabama:

The following case has proven so interesting and instructive to me that I deemed it worthy of your consideration.

Miss L. stenographer, age twenty-eight; family history negative; previous history good; menstruation always regular and free from pain. About the latter part of March, 1901 she began loosing appetite and lost considerably in weight. She consulted a physician about the first of May for stoppage of menstauation and general breakdown. The physician thought her trouble due to overwork and close comfinment and advised a rest, but she continued working. As her health did not improve, she went to the country about the first of June and remained about two weeks without any improvement. While there, she had fever every evening and several times had sharp darting pains in the lower part of the abdomen. Bowels moved only when a laxative was taken. She returned to Selma about the middle of June and resumed work, The pains became more frequent and more severe, occuring sometimes several times during the day and then stopping for several days. She had some fever

*Read before Alabama State Medical Association Birmingham,. Ala. April, 17, 1902.

from time to time until the middle of July when she went to bed.

The family physician was called, and from the symptoms presented, though she had an attack of continued fever. The temperature ran a remittent course, pronounced nausea, bowels becoming regular after taking an efficient cathartic.

After being in bed about one week, she noticed a tumor in the lower part of the right side of the abdomen, and as her pains became worse, she called her physician,s attention to the tumor in the side. His diagnosis was appendicitis. After this time her fever became less, but the pains became more violent. Aug. 1st, 1901, the fever and pains had both disappeared. Aug. 5, 1002, the patient was up and about the room, but did not gain strength. She was, however, free from fever and pain until Aug, 13th.

Aug. 8th, her physician left for his summer vacation, telling me that I would probably be called during his absence and might have to operate. I was hurriedly summonsed on Aug. 14th and found her suffering most excruciating pain in the lower abdomen, which was markedly tender on pressure. There was an absence of muscular rigidity and tympanitis. The temperature was between 102 and 103, pulse rapid and feeble, expression pinched and anxious, emaciation extreme. Gentle palpation revealed a smooth, slightly oblong tumor about the size of an English walnut at McBurney's point. The tumor was very sensitive, but allowed a limited movement toward the liver. The question arose as to whether we were dealing with a floating kidney, an appendicular abscess, or a groath at the cecum. The tumor was too small and too round and its motion too restricted for a floating kidney, as all such kidneys, in my experience, have had a wide range of motion. Again, a floating kidney does not produce an elevated temperature.

The patient's youth was rather opposed to a malignant growth of the cecum, and there had been no symptoms of obstruction at the ileo-cecal valve, the usual seat for such growths. Besides, the tumor was smooth and non-nodular. Taken in connection with the history of the case, the symptoms were those of appendicitis.

The symptoms favorable to appendicitis were severe intestinal colic referred to the right iliac region in the neighborhood of the cecum, and a well defined tumor, elevation of temperature and an increased pulse rate. According to Richardson, there was needed only one symptom to make the diagnosis of appendicitis positive and that was muscular rigidity. This symptom was not present. Again, it seemed improbable that an appendix so violently inflamed as to be the seat of an abscess for some two months should now have apparently so few adhesions. The mobility of the tumor and the absence of muscular rigidity made me doubtful as to the presence of appendicitis.

Some will contend that the fever had no relation to the tumor, but was merely a coincidence; but a careful analysis of the case shows that the latter attacks of intestinal colic came on suddenly and were always accompanied by an elevated temperature and it was very evident that this tumor was the cause of the illness.

Her sufferings were most acute and were not relieved by the large and frequent doses of opium that she had been taking. I discontinued the opium and applied an ice bag to the right iliac. The pains soon ceased and the temperature dropped to normal.

The patient was so debilitated by her long and continued sickness that I hesitated advising an operation; but believing she would grow no stronger by waiting, I recommended a laporotomy. The operation was declined. I was very candid with the family and told them that without surgical interference the issue would be doubtful. The next morning she was better and the operation was still declined. That afternoon she was much worse, abdomen very tympanitic and tender. No tumor could be found and I thought that it had ruptured, setting up a general peritonitis. The knife was still refused and I spent a very restless night, expecting any moment to be summoned to see the end. By morning the tympanitis had disappeared and the tumor again "showed up."

The family agreed to allow me to operate and she was removed to the Selma Infirmary where, after twenty-four hours of preparation, a section was done with the kind assistance of Drs. Ritter and Rogan. There was no peritonitis nor peritoneal adhesions. The appendix was normal and lying rather in front of the cecum. As it had committed no sin worthy of decapitation, it was left in situ. Just under the appendix, and separated from it by the anterior wall of the cecum was the tumor. A transverse slit was made in the cecum and the tumor found attached by a very short broad pedicle to the mucous membrane of the cecum near the ilio-ceceal valve.

The tumor was removed and the intestinal opening closed by the Czerney-Lembert stitch, using fine cat gut as suture material. The abdominal wound was closed with through and through silkworm gut.

The patient reacted well from the operation and her convalescence was uninter-

rupted. The temperature never went to 100 deg. F., and there were no more abdominal pains. The first dressing was removed in one month and it was found that the wound healed by primary intention without a stitch abscess. In a few months she was stouter than she had been in several years.

The tumor was subjected to a microscopical examination by the Pathologist of the Charity Hospital at New Orleans, who reported it to be a simple Papilloma.

April 10th, 1902, eight months after the operation, the patient is still in good health with no evidence of a return of the growth.

Sick Babies.

By H. K. Aiken, M. D., Laurens, S. C.

The season is already upon us when calls to attend children with bowel troubles commence. One case here and there at first soon the number increases and before long the average doctor has all he wants of this class of cases because some of them will be very sick and cause him no little anxiety. The causation the exact pathology, the proper classification how much or how little teething has to do with producing the summer diarrhœa of infants and several other heads have been discussed pro and con so often that I do not propose to touch upon them now.

What the busy doctor wants is something that will cure these little patients and after they are well he can ruminate upon the other points. Without claiming to have found a specific and without any desire to appear dogmatic I will outline the treatment that my experience has convinced me is best and ask for it a trial by others. No truer, terser or better advice was ever given than that for which we are indebted, if I remember correctly, to the Alkaloidal people. "Clear out, clean up and keep clean" referring to the elimentary tract. Give at first that good old evacuant castor oil. Its made sweet now for children. If too much nausea for this give minute (1-8 to 1-10 1-20 gr.) doses of calomel until the bowels are uuloaded. *Rectal* flushings with warm soapsuds helps towards this end. Washing out the colon with *long tubes* is a myth and a delusion. The shortest tips of any fountain syringe is longer enough. Gravity aided by posture will do the rest.

Look to the diet and besides plenty of pure cold water give.

℞ Oxide zinc
Salol
Elix Lactop with Gentian and Chloride Iron

The aduct dose of the first varies from 1 to 10 grains. Of the second from 5 to 25 and of the last from 1 to 2 teaspoonfuls. The childs dose is easily proportioned to age. Oxide of zinc is astringent an attiferment and relieves tenesmus. Salol is a harmless intestinal antiseptic and the vehicle suggested is a stomachic and systemic tonic with astringent properties. Subnitrate of bismuth has been a disappointment to me. Opium is a narcotic poison for babise and I dislike to use it. The camphorated tinc. is the least objectionable preparation. These bowel troubles are met with oftenest about the time the infant leaves off breast milk and goes upon solid food. Too much care cannot be used in feeding these cases but no hard and fast rules can be laid down. What one does well on, another grows worse on. General principles only need be carried in mind. The value of daily cold baths and several other points could be touched on but these might deprive this article of perhaps its only merit—brevity.

Present Day Ideas in Cholelithiasis.

By A. R. Williamson, M.D.

In no branch of injquiry has there been greater progress in the past 20 years than in this interesting subject.

It has been decided that many cardinal symptoms, which were formerly regarded as pathognomonic of this condition are no longer to be considered essential; for example, jaundice is no longer regarded as necessarily existing in this condition, and the idea of waiting for its appearance as a confirmation of the existence of gall stones is not only unnecessary but illogical.

Jaundice is a symptom which may occur in inflammation occurring in the whole biliary tract, or it may occur in obstruction or retention. Rather more important signs of gall stones are the following.

Disease of the gall tracts are common and may be mistaken for other conditions very easily. The diagnostic points of maximum tenderness on pressure over the region of the gall bladder is an important one which corresponds in importance with McBurney's Point in appendicitis. Another important point is the existence of bile in the urine, during or immediately after obstruction of the common duct. It may be, in the case of gall stones, that the pain is the only symptom complained of and on the other hand, rigor and fever may be the more pronounced, while pain may be comparatively absent. It is known now that gall stones occur at an earlier age than was formerly supposed. Musser relates a

case of a man 23 years of age from whom 200 calculi were taken at an operation and who had a history of having had hepatic colic from the time he was 15 years of age.

When we take up the question of the diagnosis of gall stones, we find that it may be simulated by renal colic, by pain in the intra-costal nerves, by malignant hepatic disease, by hysteria, by colic occurring in the appendix, by acute flatulent dyspepsia. Even when there is present an enlargement of the liver the physician should be very careful in making his diagnosis, for such enlargement may be due to other causes, such as cirrhosis of the liver, syphilis, abscess, cancer or colongitis.

There are undoubtedly two tendencies existing in the human frame which lead to the formation of gall stones; in the first place more or less impediment to the free out-flow of bile and kidney obstruction, or possibly, congestion of the mucous membrane of the gall bladder and biliary tracts. It is probable that gall stones follow, as a rule, some more chronic disease rather than appearing after acute or virulent inflammation. There is required for the formation of nuclei a considerable amount of time which, of course, is absent in the very acute inflammations. Opie has studied the relation of cholelithiasis to diseases of the pancreas and fat necrosis, and he has found that where the anatomical conditions are suitable, pancreatic disease is a complication of cholelithesias when gall stones pass along the common bile duct.

After the lodgement of stone, one orifice of the bile duct compresses and occludes Wirsung's Duct and this a not uncommon cause of pancreatic disease. If such a calculus be imbedded at this point Opie has found several conditions to result. In the first place, an individual who has been in fair health with the exception of a history possibly, of previous gall stone colic, has sudden pain in the epigastrium followed by vomiting and collapse. Death, under these circumstances, usually occurs in 48 hours and the autopsy shows gall stones in the bile duct, while that which caused the fatal attack was near its opening. On examination the pancreas is found to be enlarged and filled with blood with hemorrhages occurring into the surrounding tissues, while here and there are found evidences of fat necrosis. If this does not occur the symptoms may subside somewhat and jaundice may appear, while there can be made out a tumor abscess at the umbilicus and the pain persists. In the course of a few months death occurs, possibly with symptoms of suppurative inflammation. At the autopsy gall stones are found and the pancreas is dry, black and necrotic. Infection has occurred and the pancreas lies in an abscess cavity. While the secondary changes are more marked, the necrosis is widely disseminated throughout the abdominal fat. Or again, the case may not be as severe as this but may undergo chronic inflammatory changes, not leading to death for a number of years.

Shattuck found that a sterile foreign body will produce gall stone formation and he also regards the contents of the hepatic and cystic duct as being usually sterile. If the common duct contains bacteria, they come in through the intestines.

Undoubtedly a number of observers have been able to produce gall stones experimentally by the use of organisms and bacteria have been proved to be present in a large number of cases of gall stones. Therefore, Richardson believes that clumping of the typhoid bacillus will produce gall stones and he has been able to accomplish this in rabbits after introducing clumped bouillon culture into their gall bladders. Undoubtedly, therefore, the colon bacillus and the typhoid bacillus are common bacterial agents in gall stone formation. But we must remember that stasis of the bile is also necessary for this change on reaction of bile and favors drecipitation of bilirubin calcium and increased cell desquamation from the wall of the gall bladder and affords a nest for the growth of the bacteria.

The suceess of the treatment at Carlsbad, where starch and sweets have been eliminated has led to the belief that these articles of diet should be excluded. Massage, under the circumstances, seems to be a dangerous form of treatment, especially when gall stones are well formed. At the same time aspiration of the gall bladder is a dangerous procedure which should be seldom done.

Operations upon the gall bladder are growing more frequent in recent years and undoubtedly their importance is growing when it is considered that repeated attacks of gall stone irritation, if they do not end fatally themselves, tend to produce cancer hepatic stomachic or in the ducts.

Kocher, who has established a brilliant reputation for operations of this character, believes that all patients who wish to recover permanently from gall stone must submit to operation, and he believes the indications are when there is repeated biliary colic, or evidence of numerous stones, or stones so large that they will not pass without trouble. Under these circumstances, he does not wait until secondary changes have appeared.

Undoubtedly, whatever other teaching there may be on this matter, when there

occurs permanent impaction of either the cystic or common duct, surgical interference is demanded.

For this purpose, when the cystic duct is the seat of the trouble, the surgeon should make a vertical incision extending along the upper edge of the right rectus muscle, beginning it below the costal arch, or in case of great enlargement of the gall bladder, even lower. After walling it off with spongues, a trocar should be plunged into the gall bladder and contents withdrawn which are fluid enough to flow from the tube. After this is accomplished, open the cavity of the gall bladder by vertical incision when the gall bladder can be scooped out. Then the stones which are obstructing the duct are squeezed back into the cavity by manipulation and in this way taken out. If there is no longer any doubt that all the stones have been taken out the incision can be closed, using chromatized catgut, end the abdominal incision closed with or without drainage. If there is a suspicion that stone still remains, then it is well to stitch the edges of the gall bladder to the peritoneal edge of the abdominal wound and insert drainage close to the abdominal incision below.

This is the procedure with the cystic duct, but when the common duct is the point of trouble, it is better, if possible, to crush the stone between the thumb and fingers, or with cushion blade of compression forceps, if it is safe enough after making incision into the common duct, but frequently this is impossible without doing damage. Then the cut must be made through the duct over the site of the impediment, when the stone is removed, after which the opening may either be closed with fine sutures, or be allowed to heal spontaneously. Whether it is sutured or not, a drainage tube should be placed in for 48 hours at least, not only for drainage but also to excite protective adhesions.

There are a number of contraindications to this operation. For example, Musser states that a surgeon must watch the blood, and the time of the clotting must be investigated; the corpuscles must be counted any number less than 2,500 000 makes the operation dangerous. Hemorrhages which occur in chronic jaundice, are serious contraindications to operation, which should only be yielded to in the necessity of saving life.

Robson, who has done a considerable amount of surgical work in connection with liver conditions, states that the following points must be considered in every case of chronic jaundice.

1. The common duct cholelithiasis.

2. Simple stricture of the common bile duct.

3. Chronic pancreatitis.

4. Inflammatory adhesions producing pressure or stenosis of the common bile or hepatic ducts.

5. Hydatid hepatic disease discharging into the bile ducts.

6. Gummata implicating the ducts.

7. Chronic catarrhal inflammation of the bile ducts.

8. Carcinoma of the common bile ducts.

9. Carcinoma of the head of the pancreas.

10. Cancer of the liver associated with jaundice due either to catarrhal inflammation or to pressure.

11. Cirrhosis of the liver.

12. Such other conditions as aneurisms of the hepatic artery or aorta and various forms of tumors pressing upon the common bile duct.

Robson believes that there are good chances of cure in the first five cases mentioned from a surgical standpoint, but he advises medical treatment only in the case of gummata and chronic catarrh of the bile ducts. He believes that a painless onset of chronic jaundice is suspicious of chronic catarrh depending upon hepatic cancer or occlusion of the hepatic or common duct by the growth. If this should associated with distention of the gall bladder and the rapid appearance of emaciation it is well to suspect the possibility of cancer of the head of the pancreas. Also, if there is an acute attack of pain in the upper abdomen, preceded by spasms and followed by jaundice it is strongly suggestive of cholelithiasis. Ascites is generally a strong indication of malignant disease and as a rule, causes a negative answer to any operation on the bile duct. The jaundice which appears with gall stones is rarely continuous, while that which follows the growth of cancer in the bile duct regularly increases or tends to become absolute.

The presence of sugar in the urine or fat in the stools in these cases is suggestive of the presence of trouble in the pancreas. If gall stones are found, and even if the head of the pancreas is swollen and hard. the surgeon should not jump to the conclusion that the case is cancerous, although he may find in addition enlarged glands. The condition may be one of chronic pancreatitis which it is possible to cure by cholecystectomy. Robson believes that tenderness 1 inch to the right and 1 inch above the umbilicus is as suggestive of trouble in the gall bladder as tenderness at McBurney's point suggests the existence of appendicitis. He believes that surgical treat-

ment must depend entirely upon the diagnosis, but if the latter is doubtful, he advises an exploratory laparotomy, with the exception of those patients who have kidney or heart trouble or who are rather elderly.

Robson has reported upon 212 cases suffering from obstructive jaundice. Of these cases there were 182 recoveries, which shows a mortality of 14 per cent. Sixty cases had malignant disease of the liver, the bile duct or the pancreas, and 46 recovered from the operation, giving a mortality of 23 per cent. In the 152 operated upon for non-malignant disease, 135 recovered, giving him the small mortality of 10 per cent. Robson believes that every case of recovery was a life saved, for he believes that death from chronic pancreatitis, stricture or adhesions would be the ordinary result.

The dangers of the operation are shock and hemorrhage, with the possibility of two other factors, exhaustion and sepsis.

He believes, to combat the hemorrhage it is well to administer the chloride of calcium for two days before the operation, and that, in addition, all adhesions should be tried, whenever it is possible, all bleed-points should be tried, and oozing should be carefully controlled by the use of packing with gauze.

Consideration of 28 Cases of Tuberculous Peritonitis at the Boston City Hospital, with Particular Reference to Results of Operative Treatment.

Bottomlly (Amer. Med., Feb. 15, 1902) mentions the fact that statistics bearing upon tuberculous peritonitis have thus far been of little practical value. This is due in part to the uncertainty of a purely clinical diagnosis, in part owing to the latent character of some of these cases, and finally, some cases have been reported too soon after operation to decide as to the ultimate result of the procedure. He believes one year should elapse before it can be said with justification that the disease was cured by the operation. Primary uncomplicated tuberculous peritonitis is rare. Nothnagel thinks the primary focus is usually in the lung. The disease may occur at any period of life, but is most common between the ages of 20 and 40, and somewhat more so in women than in men. The family history seems to play a very minor role, but many of the cases have complained of some previous abdominal trouble, as "inflammation of the bowels," typhoid fever, or some abdominal operation or a previous similar attack. The onset may be sudden or gradual, with or without pain, distention and malaise. Pain is present at some time or other in a large majority of the cases. Loss of flesh and strength, abdominal tenderness, nausea, vomiting and some bowel disturbance were other prominent symptoms. Fever was present in all of the author's cases. Osler has described cases running a subnormal temperature. Aldibert has classified tuberculous peritonitis as follows: 1. Ascitic, acute or chronic, the latter either general or encysted; 2, fibrous—dry or adhesive; 3, ulcerative—dry or suppurative. Of the 28 cases dealt with by Bottomley, 19 were ascitic, of which 10 were acute and 9 chronic. Of the latter, 6 were general, 3 encysted; 7 were fibrous, 2 dry. 5 adhesive; 2 were ulcerative in type, both suppurative; 11 patients recovered, the same number died, making 39.3%; 2 improved (7.1%), and 4 (14.3%) could not be found. Most observers agree that ascitic cases give the best result when operated upon, but in this series the fibrous type yielded equally as well. He summarized as follows: 1. Cure (1 year or more after operation) may be reasonably expected in 30% to 40% of all cases. In fatal cases death usually occurred a few months after operation. 2. Family history seems to have very little etiologic significance. Previous inflammatory conditions of the abdominal viscera may have. 3. Operation is usually followed by temporary improvement, even in cases which subsequently terminate fatally. Drainage should be avoided whenever possible. 4. The prognosis is very unfavorable in those cases which do not show immediate local or general improvement after an operation.

How Shall We Treat Sepsis following Labor and Abortion.

W.O. Henry (Annals of Gynecology and Pediatry) suggests the following rules: 1. Remove early with the finger, shrap curette and flushing, all debris, decidua, blood clots and sloughing tissue which may be infected from the uterus and from all raw surfaces in cervix, vagina and vulva. 2. Dry all these raw surfaces and freely apply to them 95 per cent. carbolic acid, washing away the surplus acid with sterile water. 3. Unless hemorrhage requires, leave no tubes or backing of any kind in either vagina or uterus. 4. Have simple carbolized 2 per cent. vaginal douche used twice a day thereafter. 5. Open the bowels freely with calomel, ½ grain every hour for four hours, then follow with Rochelle salts until sufficient action has occurred. 6. Give 3 grains sulphate of quinine every four hours. followed by 15 drops tincture of chloride of iron, in water. 7. Give good nourishment with milk, eggs and

stimulants every four hours. 8. Let this be the routine; early treatment and more radical measures will rarely be indicated. 9. Fixation of uterus, with infiltration in Douglas' culdesac or ligaments, or pus in tubes or ovaries must be treated by opening and draining through vagina. 10. Multiple abscesses in uterus walls, or infection of walls or pelvic cavity, call for removal of uterus and all else necessary by the vaginal route. The abdominal route in all acute cases is dangerous and seldom, if ever, justifiable.

Heart Disease in Children. The Syphilitic Factor.

William MacKinzie (Australasian Medical Journal) says that pericarditis and not endocarditis is the common lesion met with in the so-called pure rheumatic hearts. Indeed, in most of the cases that have died with heart failure, thickening and adhesions of the pericardium, and a healthy endocardium has been the rule. In the syphilitic patients the endocardium, and in no case the pericardium, was affected. In any child showing symptoms of early and rapid heart failure after the initial endocardial attack, a suspicion of lues must be entertained. Early dropsy is characteristic of the failure of the luetic cases with endocarditis, should the patient live long enough, and is, probably, largely dependent on syphilitic arteries. Dropsy is not seen in the early failures of pure rheumatic cases. It is seen in the later failures as the result probably of a degenerative arteritis from malnutrition, is irresponsive to treatment, and too often ushers in the end.

The Functions of the Soluble Ferments of the Blood in Intracellular Digestion.

A. C. Croftan (Journal of the American Medical Association, May 3, 1902) says assimiliation and disassimilation of food occur in two stages: (1) Anaerobic stage, in a reducing medium in the absence of oxygen, in the interior of the cell; (2) An aerobic stage in the presence of free oxygen (hæmoglobin) at the periphery of the cell, i. e. chiefly in the blood and lymph stream. Both processees, it appears, are inaugurated by the intervention of soluble, chemical, unorganized ferments that the cells secrete. The term "intracellular" digestion is essentially synonymous with general metabolism. The fermentative changes in the gastroenteric canal are essentially hydrolyses, by which diffusion through the membranes is facilitated. In the passage of the hydrolyzed products through the bowel wall they are reconverted, and these processes have been shown to be due to enzyme action. The question arises, where do these processes occur? In the mucosa, the muscularis, the serosa, the lymph or blood stream? Presumptive evidence is overwhelming in favor of the supposition that the leucocytes in the blood and lympth capillaries of the intestinal wall are in some way concerned in this process (digestion-leucocytosis). All the ferments are so toxic when circulating freely, and are still so universally present that we can only assume that mobile cells, like the leucocytes, bear them in a harmless form through the blood and lymph-stream to their ultimate destination, while we have so far been unable to demonstrate experimentally that the cells of our body, like certain bacteria, secrete enzymes that bring about the processes of proteolytic anaerobic fermentation, we are able to show experimentally that the second, oxidative stage of dissimilation of fats, carbohydrates, etc., is due to the action of numerous soluble ferments that are present in the blood and lymph. Whether the blood ferments, after they perform their function, are destroyed, eliminated, reinclosed in leucocytes, arrested in the digestive glands to be re-excreted, or finally are held by such dis-intoxicating organs as the suprarenals, the thyroid and the liver, it is impossible to say. As the urine nearly always contains some of the ferments, as they are nearly always present in the liver, and as they certainly must suffer the ultimate fate of all the other constituents of the body, it is probable that all these processes can and do occur.

The Neuropathological Aspects and Neurotherapy of Marasmus Infantilitis.

Charles H. Hughes (St. Louis Medical Review, April 12, 1902). 1. A clean prima viæ, as aseptic as may be practicable without harm to the patient; 2, assimilable nutrition by mouth and skin; 3, normal blood pressure restored with normal salt solution per rectum and subdermally; 4, judiciously regulated hyperthermia slightly above the normal for ordinary infants, and adapted to the vitality of each case. Regulated light; 5, cautious, general, cerebrospinal and enteric electrotherapy, to stimulate cell activity, central and epithelial. Special sanitary environment, with a slightly ozonized air, and certain aromatized inhalants and condiments; 6, such attention to the skin as will best promote its vitality as an absorber of oxygen and as an exhalant and eliminant. Vicarious and otherwise transmitted and awakened nerve-center energy. By inference, powdering of the skin and rough rubbing would be excluded, while moderate and gentle warm cutaneous friction would be indicated.

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UNIFORMITY IN THE ORGANIZATION OF STATE AND COUNTY MEDICAL SOCIETIES.

At the reorganization of the American Medical Association at its fifty-second annual meeting at St. Paul, Minn., in 1901, of which reference has been made in editorials in this journal, a plan of reorganization was reported and adopted. The principles of the new form of the association makes the organization of the entire profession of the country quite possible and in fact is the prime object in view.

In accordance to a resolution passed at that meeting the president Dr. John A. Wyeth of New York City, later appointed a committee of three, Drs. J. N. McCormic, Bowling Green, Ky., P. Maxwell Foshay, Cleveland, Ohio, and George H. Simmons, Chicago, Ill., who have prepared a constitution and by-laws, which will be proposed at the meeting of the American Medical Association which will have met before this appears in print. The purpose of this is to have all of the state medical societies conform on their organization to a uniform plan. In the scheme, the county medical society is made the unit of the complete organization. Here the local county society, with its censors, chosen from the body of its membership, are able to judge and decide accurately as to the eligibility of any practitioner, becoming a member of the local society; thus assuring the state society of the good standing of those sent to that body as delegates and as permanent members; also to the American Medical Association, this censorship stands as reliable endorsement to membership in its guild. No physician can be a member of the National or State Association unless he is in good professional standing in his local county society. Therefore it is urgent and the duty of every state society in the nation to complete the organization or to adjust the plan of its orgization to meet the requirements of the reorganized American Medical Association. Many state societies will do this at the meeting this year and all other states should attend to the matter with all possible promptness, since it is wise to have the entire profession united in a complete and wholesome organization at the earliest opportunity. John A. Wyeth, M. D., of New York, President, in an editorial address in Journal of the Association to the Medical Profession of the United States says: "The necessity for a thorough organization of the medical profession was never more urgent than at the present moment, nor has the appreciatio of this necessity ever been more keenly felt than at this time." There are states too, where no organization exist. The leaders in the profession of such states should take such steps at once that will result in an organization of the profession of that state into an association, in conformity with the suggestion of the American Medical Association. Other states will require a reconstruction of their constitution to conform to the new order, so that the county societies can affiliate and practically constitute the society of the state organization. In some states there are counties where no societies exist or organization of the profession whatever; here is work for the missionary to organize local societies.

The American Medical Association urged at the reorganization "That each state society shall at the earliest possible moment appoint (a) a committee on organization to which shall be referred, with the associations endorsement, the report of such committee and especially that part which refers to state and county societies. (b) That each state society immediately raises funds and employ an organizer to organize the profession of its teritory.

Let everybody help this matter along.

INFANTILE SCORBUTIS.

During the past ten years, observers in diseases of children have recognized a decided increase in the occurrence of cases of this pathological condition in the United States where it previously had been but rarely observed. Much of this is due undoubtedly to the influx of a foreign class, especially Hungarians and Poles in this country. The fact of its increasing occurrence and necessity to be prepared to detect the earliest indications of its presence in an individual are two very important points for the practitioners to be fully conversant.

Osler[1] says that this condition must always be looked for in young children with difficulty in moving the lower limbs, or in whom paralysis is suspected. The condition comes on insidiously, and unless the earliest symptoms are recognized, the disease will have produced such injury that weakness and deformity will be marked through life; hence the very great import-

1 Osler, Practice of Medicine, 4th vol.

ance of being fully alive to the earliest indications of the disease and to meet the requirements which is needed to correct the progress, before such effects result.

Pierson[2] says: this disease is fairly common among children of the well-to-do families, he also adds "the etiology is doubtful but it usually follows unsuitable diet." Might not this be largely the result of the failure or refusal of many of the better class to nurse their children and of their adopting a bottle feeding method of diet for the baby.

An editorial, "Are women loosing the capability of lactation," in the New York Medical Journal for April 12th, 1902 says: The fact, we think has been generally recognized, and it has been commonly explained as due to the unwillingness of women to do their full duty to their offspring." As a result all sorts and conditions of proprietary and patent foods are adopted as a diet for the new-born; many times the cheapest and the one requiring the least effort in preparing for the feeding, are the ones selected. No care or attention as to the constituents or value as a diet is given of such food, until the degenerating physical condition shows a marked appearance, is the matter given an investigation.

We see usually among the families of the poorer class a more robust and healthy specimen of children. Here we do not have that mock sentimentality which is observed in higher walks of life as to the methods of nourishment as provided or at least designed by nature, a form of feeding which if there exist no counter indications, should be always most rigorously insisted upon by the attending or family physician.

Just here is presented a great work for the family physician; a work that is only lately begun to receive due attention and one of the utmost importance. Where it is found necessary that an artificial food must be resorted to for the nourishment of the new-born baby; of the infant in its early days; before the advent of a mouth filled with teeth; a proper and appropriate dietary, or properly prepared cows milk food, should be worked out and prescribed for the child, just as carefully as a line of treatment would be, after diagnosing any complicated disease or illness in the child. We have a complex need that must be properly supplied if we will have our little foundling thrive and grow strong. The parents must be carefully instructed in all of the details so that the course and methods may be fully carried out.

In this way the condition known as scorbutis or scurvy will become less in frequency and eventually be known practically as a thing of the past.

2 Boston Medical and Surgical Journal, Oct. 3. 1901.

THE STUDY OF EPILEPSY.

For ages this malady has interested the investigators in nervous diseases and has caused the general practitioner to study and labor to discover the pathological condition and etiology of this pecular and hideous display of nervous explosion.

During the past decade this subject has received special study; and great earnestness has characterized the efforts and measures used to gain light regarding the real or exact cause and nature of this disease. Throughout the world every effort is being put forth to use the means and measures which can be secured for the prosecution of this study. In all of the large hospitals and laboratories throughout the civilized world every available opportunity is being used in the study of this disease. In New York at the Craig Colony the work is being prosecuted with the utmost energy.

Societies are being formed in States and lesser divisions for this study. There can not be too much effort put into the study and investigation to discover all that may be learned of this disease, which is a constant anxiety to the individual affected as well as to every one with whom they may be in association; and all investigators of the disease should have the support and encouragement of the entire profession.

The great frequency of the disease as well as the hideousness of the symptoms make it one for which the greatest reasons exist for its investigation and if possible to discover the exact etiology and definite rational of the force which serves to inaugurate the nervous impulse or explosion. The perpetual Census Bureau of the Federal Government should be influenced to arrange and collect statistics and data of the disease in the United States, for the use of those who are at work in this study. Every hospital, even the small hospitals and the general practitioner, should give this class of cases continued study and investigation. New light and truths will be presented and facts will be discovered in the future, in regard to this disease, as has happened or been worked out by investigators in other nosology in the past.

The absence of definitely known pathological lesions with a treatment that is largely empirical would alone indicate an absence of the true knowledge of the disease which we are in need of, to fully care for it and effect a cure. If an individual is relieved, or the epileptic seizures cease, it is rather the result of natural forces, than of

the treament. The cure or permanent relief is the desideratum, which the profession needs to strive to acqurie, before the work is accomplished.

Who will prove to be the Jenner or Sims in this widespread disease remains for the future to disclose; but with earnest human effort the discovery of the boon to the epileptic will occur and a new name will be emblazoned on the escutcheon of fame.

We are in receipt of the first report of the New York State Hospital for the care of the Crippled and Deformed children. This Hospital is located at Tarrytown on the banks of the Hudson. Although it has been in existence only about a year, it now has all the patients it can accommodate, and a number of application for admission are on file. A grand work is being accomplished by this institution. Without attempting to assign any reason for it—of a truth, we can see none—we must admit that every class of unfortunates are more zealously provided for than this class. Although they are a bother to themselves, and often a care to their families. it is remarkable that there has been no means, or very little on the part of our states, adopted for their improvement. Certainly a great many can be benefitted by proper treatment and not a few, permanently cured.

BOOK REVIEWS.

The Diagnosis of Surgical Diseases. By Dr. E. Albert, Late Director and Professor of the First Surgical Clinic at the University of Vienna. Authorized Translation from the Eighth Enlarged and Revised Edition. By Robert T. Frank, A.M., M.D. With fifty-three Illustrations. New York: D. Appleton & Co. 1902.

This is the first American edition of a popular German work and we predict for it a welcome reception from the profession. The work of translation has been well done, and the thanks of the profession are due him for presenting such a useful book to the profession. The preface of the translator gives an excellent idea of the character and scope of the work.

This volume presents to the practitioner and to the student the problems in diagnosis which confront them at the bedside. In order to achieve this object theorectical classifications are not adhered to; instead, diseases are grouped according to similarity of symptoms and points of general resemblance—considerations which in practice render their differentiation difficult. In this way the advantages of clinical teaching are most nearly attained, and by the presentation of a large number of cases, the value of this arrangement is further enhanced. The fragmentary and disjointed instruction which clinical demonstration necessarily entails, even under the most favorable condition, is thus systematized. Morever, whenever feasible, the cases reported are followed to the operating table, at times to autopsy, either to confirm or to correct the diagnosis.

Abbott's Bacteriology. A Practical Manual of Bacteriology for Students and Physicians. By A. C. Abbott, M.D., Prof. of Hygiene, University of Pennsylvania. New (6th) edition, revised and enlarged. In one 12mo volume of 636 pages, with 111 illustrations, of which 26 are colored. Cloth, $2.75, net. Just ready. Lea Brothers & Co., Publishers, Philadelphia and New York.

The past three years have been productive of rich results in bacteriological study, and the new edition of Dr. Abbott's excellent manual appears opportunely.

Among other matters of great and practical interest which the volume includes are the recent findings regarding the causation of cerebro-spinal meningitis and dysentery; the lately reviewed investigations in tuberculosis, and the discovery of the new group of micro-organisms, which appear to be so closely allied to the bacillus tuberculosis; the very considerable additions that have been made to our knowledge of the mechanism of infection and immunity, etc.

Dr. Abbott's work has had a very successful life. Six editions, each larger than its predecessor, in ten years, is a record reached by few medical books. This rapid and increasing demand offers frequent opportunities for revision, and each of these six editions presents not only a complete renewal, but a considerable enlargement, so that the volume now is nearly three times its original size.

That Abbott's Bacteriology is an accepted authority and a strong favorite with both student and instructor is not at all surprising.

Diseases of the Nose, Pharynx, and Ear. By Henry Gradle, M. D., Professor of Ophthalmology and Otology, Northwestern University Medical School, Chicago. Handsome octavo of 547 pages, profusely illustrated, including two full-page plates in colors. Philadelphia and London: W. B. Saunders & Co., 1902. Cloth, $3.50 net.

This volume is intended to present dis-

eases of the Nose, Pharynx, and Ear as the author has seen them during an experience of nearly twenty-five years. In it are answered in detail those questions regarding the course and outcome of diseases which cause the less experienced observer the most anxiety in an individual case, questions to which an answer is not easily obtained from text-books. In the therapeutic part of the work the author has given detail only to those procedures which have withstood the test of critical experience. Topographic anatomy being a requisite for all surgical work, the author has wisely devoted liberal space to this branch of the subject. The numerous illustrations are exceptionally accurate in their portrayal of the pathologic conditions, especially so the two full-page colored plates. We know of no work of its size that is at the same time so useful a text-book and so excellent a work of reference.

Diphtheria, Measles, Scarlet Fever, and German Measles. Diphtheria. By Wm. P. Northrup, M. D., of New York, Measles, Scarlet Fever, and German Measles. By Professor Dr. Th. Von Jurgensen, Professor of Medicine in the University of Tubingen, Edited, with additions, by William P. Northrup, M. D., Professor of Pediatrics in the University and Bellevue Medical College, New York. Handsome octavo, 672 pages, illustrated, including 24 full-page plates, 3 of them in colors. Philadelphia and London: W. B. Saunders & Co., 1902. Cloth, $5.00 net; Half Morocco, $6.00 net.

This volume, the third in the series of English translations of the "Nothnagel System of Practical Medicine," needs no recommendation. Professor Jurgensen and Dr. Northrup are too well known for us to expect anything but the best. The article on Diphtheria, entirely original with the editor, is fully in keeping with the high standard set by the other German articles which comprise the work. Dr. Northrup, having been associated with Dr. O'Dwyer at every step in the perfection of intubation tubes, is particularly fitted to describe this aspect of the treatment of diphtheria.

Professor Jurgensen's monograph on Measles unquestionably is the most comprehensive contribution on that infection that has appeared, bringing out so fully the valuable Danish records of the Faroe Islands epidemic. His exposition of Scarlatina is unrivaled both for richness of clinical detail and exactness and clearness of statement. "Fourth Disease" and German Measles have been accorded spaces consistent with their importance. The editor has shown judicious decision in his extensive additions making the work far and away the best and most up-to-date treaties of the subjects extant. The book is profusely illustrated, containing, besides a large number of text cuts, twenty-four full-page plates, three of which are in colors.

A Manual of Surgical Treatment. By W. Watson Cheyne, M. B., F. R. C. S.. F. R. S., Professor of Surgery in King's College, London, Surgeon to King's College Hospital, etc., and F. F. Burghard, M. D. and M. S. (Lond.), F. R. C. S., Teacher of Practical Surgery in King's College, London, Surgeon to King's College Hospital, etc. In seven imperial octavo volumes, with illustrations. Volume VI, 498 pages with 124 illustrations. Cloth, $5.00, net. Lea Brothers & Co., Philadelphia and New York, 1902.

As this work approaches completion its great value becomes more and more evident covering as it does exactly the surgery that comes to the general practitioner's frequent notice and care, it is doubtful whether any volumes in his library will be oftener consulted, and certainly none will give him greater practical assistance.

The present volume is an especially valuable one, covering the Treatment of the Surgical Affections of the Tongue and Floor of the Mouth, the Pharynx, Neck, Stomach and Intestines, etc.

The authors, as in the preceding volumes, take the reader unreservedly into their confidence. Every step of the preparation, operation and after treatment is minutely and clearly explained, illustrations being freely used. Nothing except an actual demonstration could be more helpful, and when the skill and experience of the authors is considered, the great value of this practical working manual becomes apparent.

Genito-Urinary Diseases and Syphilis. By Henry H. Morton. Illustrated with half-tones and full-page color-plates. Philadelphia: F. A. Davis & Co., 1902. Col. front., xii, 372 pp., 2 col. pl., 4 pl. 8vo. Price, cloth, $3.00.

Most of the works on genito-urinary surgery are so voluminous that the busy practitioner has not the time fully to read them, and often if he does, he becomes confused by the multiplicity of detail.

In this work this objection has been obviated, for the author has carefully pruned off all irrevelant matter, and has expressed in a short and concise form all of the latest views of the pathology and treatment of gonorrhœa and seminal vesiculitis; as well as the best surgical proceedure in diseases of the kidney, bladder and testicle.

The chapter that treats of diseases of the

prostate is, perhaps, the best in the book, for in a short space the author has given all of the modern methods of relief, as well as a brief summary of the results of the various surgical treatments.

A valuable feature of the book is the profusion of illustrations, many of them being entirely original.

The arrangement of the subject matter is unique.

The book is of convenient shape and size, well bound, and very clearly printed on good paper.

The work can be recommended to any one who wishes a short and useful treatise on genito-urinary diseases and syphilis.

International Clinics. A Quarterly of Illustrated Clinical Lectures and especially prepared Articles on Medicine, Neurology, Surgery, Therapeutics, Obstetrics, Pediatrics, Pathology, Dermatology, Diseases of the Eye, Ear, Nose, and Throat and other Topics of Interest to Students and Practitioners by leading Members of the Medical Profession throughout the World. Edited by Henry W. Cattell, A.M., M.D., Philadelphia, U. S. A., with the Collaboration of John B. Murphy, M.D., Chicago; H. C. Wood, M. D., Philadelphia; T. M. Rotch, M.D., Boston; E. Landolt, M.D., Paris; Thos. G. Morton, M.D., Philadelphia; James J. Walsh, M.D., New York; J. W. Ballantyne, M.D., Edinburgh, and John Harold, M.D., London, with Regular Correspondents in Montreal, London, Paris, Leipsic, and Vienna. J. B. Lippincott Company, Philadelphia and London. Cloth, $2.00. Volume 1, 12th series, 84 illustrations—3 colored plates.

The present is an unusually good volume of a valuable quarterly. Each article is an especially prepared essay by a physician competent for the work he has undertaken.

The subjects treated are timely, and the essays are written in clear and concise language. There are a large number of excellent illustrations scattered throughout the book, and they serve well to make plain the text.

The volume begins with short biographical sketches of two eminent living physicians, Drs. S. Wier Mitchell and John A. Wyeth. Next follows a series of articles under the head of Therapeutics, the most interesting of these being that of Dr. Horatio C. Wood, Jr., on A Description of the Methods of Investigating the Action of Drugs, and Habitual Constipation, by Dr. I. Boas, of Berlin. Then follows essays on strictly medical subjects, including Gastrointestinal Autointoxication, by Dr. J. C. Hemmeter. Surgery is represented by six excellent articles, and under the head of Obstetrics A. Bossard discusses the subject of The Contest Between the Advocates of Symphyseotomy and the Partisans of Cesarean Section. Dr. B. A. Rundall reports a case of Mastoid Disease due to Smallpox.

The Clinics concludes with A Review of the Progress of Medicine During the Year 1901, by Dr. Edward W. Watson, of Philadelphia, which epitomizes in a masterly way the advancement that has taken place.

No library is complete without the International Clinics and we can hardly see how one up-to-date physician can get along without it

Quains Dictionary of Medicine. By Various Writers. Third edition. Largely rewritten and revised throughout. Edited by H. H. Montague Murray, M.D., F. R.C.P., assisted by John Harold, M. B., B.Ch., B.A.O., and W. Cecil Bosanquet, M.A., M.D., M R.C.P. New York: D. Appleton & Co. 1902.

This third edition of "Quain's Dictionary of Medicine" is a large volume of 1,892 pages. The object in preparing this new edition is to produce a book which shall serve as a reliable and readily available work of reference for the practitioner and student of medicine. The plan of the book as originally outlined by Sir Richard Quain has been preserved, of laying stress upon the diagnosis and treatment of disease, including a discussion of pathology and etiology. Certain articles appearing in former editions have been omitted and many new ones added. It may be said that the editors and contributors have clearly made every effort to produce a concise, accurate book relating to the broad field of medicine and surgery. The illustrations are entirely adequate, though not numerous. Fourteen full-page plates in colors add to the attractiveness and usefulness of the book. The list of contributors, containing as it does many of the best known names in the profession in England, is a sufficient guarantee of the accuracy of the subject matter. We can unhesitatingly recommend this valuable work. The publishers have done their work well.

The Divine Pursuit. By John Edgar McFadyen, B.A. (Oxon) M.A. (Glas) Professor of Old Treatment Literature and Exegesis, Knox College, Toronto. Published by Fleming H. Revell Co., New York. 12 mo., cloth, gilt top, net $1.00.

This little volume comprises a series of 24 devotional essays and the subject

matter is of a profound nature his language is of the most simple. Adding to the most thorough scholarship a deep piety, his work takes that genuine flavor that is possible only by the complete blending of these two esseniials. Prof. McFadyen's style is attractive, his thoughts original. There is nothing prosaic in the whole work.

A Compend of General Pathology. By Alfred Edward Thayer, M. D., Assistant Instructor in Gross Pathology, Cornell Medical College; Pathologist to the City Hospital, etc. Containing 78 illustrations, several of which are printed in colors, Philadelphia: P. Blakiston's Son & Co. 1902. Price, $1.00.

In preparing this compend, the practical needs of the student have been considered, controversial matter and references to authors and articles have therefore been omitted, and the effort to simplify the subject steadily maintained. Chapter VI., on Inflammation and Repair, is based almost entirely upon a syllabus prepared by Prof. James Ewing, of Cornell Medical College, for one of his classes. To Dr. John C. Johnson the author expresses his indebtedness for valuable hints, and for the photographs which illustrate the chapter on neoplasms.

Manual of Child-Bed Nursing, with Notes on Infant feeding. By Charles Jewett, A.M., M.D., Sc.D., Professor of Obstetrics and Diseases of Women in the Long Island College Hospital. Fifth Edition, Revised and Enlarged. $0.80. 1902. New York: E. B. Treat & Co., 241-243 W. 23d Street.

That it has reached a fifth edition is proof enough that Dr. Jewett's instructions to nurses in puerperal cases have met a real want in a satisfactory way. One great merit of the book is the plain, simple and elementary manner in which everything has been explained, so that even an untrained nurse should be able to glean from it much useful knowledge. Indeed, physicians in country districts who, as a rule, are obliged to depend upon unskilled nursing in confinement cases, would do well to put some such manual as this into the hands of the ignorant, opinionated, garrulous old women who nurse most of such cases. Many of these women would not have the capacity to grasp even Dr. Jewett's clear directions, but it might at least promote a greater humility in them by showing them how little they know of what they ought to know. Some important additions have been made to the book since the fourth edition came out.

The Practical Medicine Series of Year Books, Comprising Ten Volumes on the Year's Progress in Medicine and Surgery. Issued Monthly Under the General Editorial Charge of Gustavus P. Head, M.D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School. Volume V: Obstetrics. Edited by Reuben Peterson, A.B., M. D., Professor of Obstetrics and Gynecology in the University of Michigan, and Henry F. Lewis, A.B., M.D., Instructor in Obstetrics and Gynecology in Rush Medical College. April 1902. The Year Book Publishers, 40 Dearborn Street.

This volume is one of a series of ten, issued at monthly intervals, and intended to cover the entire field of medicine and surgery This, the April number, is upon Obstetricts and is intended to represent the most advanced thought of writers upon this subject during the past year. The idea is a good one and this number is most excellent. Our readers cannot do better than by subscribing to this useful series

Ohio Medical Society Transactions, Vol. XIX for 1901, has been received.

It is a large book of five hundred pages and is filled with many interesting and scientific papers, many of them illustrated. The Society has seven hundred members, many of them well known to the medical profession throughout this country. Dr. Wevnor, Council Bluffs, is Secretary.

Transactions of the Colorado State Medical Society. Thirty-first Annual Convention. By-Laws and List of Members.

We congratulate the corresponding secretary, Dr. J. M. Blaine, upon the excellent typographic condition in which he has brought the volume through the printers' gauntlet. The work is a handsome one, containing 550 pages and is filled with many valuable papers.

LITERARY NOTES.

The April Lippincott's Magazine. Lippincott's April Magazine, issuing March 21, publishes as its complete novel (for which it is noted) a love-story of the West Indies by John S. Durham, Ex-Minister to Haiti and Santo Domingo. The setting of "Diane, Priestess of Haiti," is therefore drawn from sight, while the plots shows a marvellous imagination. "Diane," a native beauty under the dominion of a priest, aspires to learn to "make the cures" and become the people's idol. But she has given

her heart to a young soldier who detests Voodooism, so her love pulls her one way and her ambition another. The story is one of fascinating intrigue, and the scenes of foreign society life in Haiti particularly interesting.

In addition to the complete novel the April Lippincott contains several admirable short stories: "Billy Baxter's Holiday," by the witty Irishman, Seumas MacManus, as full of humor as anything he has done. The holiday is spent in New York, where Billy's queer Irish ways cause his sister-in-law much uneasiness.

General Charles King contributes to the April Lippincott his latest military love-story, called "Like Father, Like Son." This is a tale of the draft in the Civil War.

"And other Considerations," by Mary Catharine Hews, is a pathetic story with a humorous side to it.

In view of the demand for a new edition of the works of samuel Richardson there is a short article in the April Lippincott which gives some of the reasons "Why We Read Samuel Richardson." The author is Mary Moss.

A paper containing "Some Advance Hints to Travellers," by William Howard Francis, in the April Lippincott, warns the traveller of impositions he will meet with on the other side of the Atlantic. This is interesting as showing the difference between America and Europe in hotel customs and other characteristics, with the balance always in favor of America.

Eben E. Rexford presents one of his practical papers in the April Lippincott. It is about "A garden of Native Plants."

With Germany so weli to the front, the article by J. G. Rosengarten in the April Lippincott on "German Influence in America" is a valuable addition to the literature on the subject by an authority.

The list of verse in the April Lippincott is remarkably attractive. The writers are Madison Cawein, Willa Sibert Cather, Arthur Chamberlain, W. N. Roundy, Carrie blake Morgan, George Seible, R. V. Risley, Phoebe Lyde, and Helen M. Richardson.

The department in Lippinott's Magazine called "Walnuts and Wine" receives praise from every quarter for its fresh, pointed anecdotes and humorous verse. It aims to excel itself every month.

Scribner's Magazine for April begins a new novel by Richard Harding Davis—an event of the first importance to all lovers of good fiction. "Captain Macklin," which begins in this number, is the longest novel written by Mr. Davis and is his first since "Soldiers of Fortune." It is his most mature work, and narrates the adventures of a youg West Pointer who was dismissed from the Academy and went to Honduras to make a name for himself as a soldier with a body of revolutionists. It is romantic and adventurous in every page, and the development of the hero from his "cub" stage to a self-reliant soldier is depicted with even more skill than Mr. Davis has heretofore shown,—which means that it is a triumph in narrative fiction. This instalment and all others will be illustrated by Walter Appleton Clark. The story will run through six numbers.

Late literary news, a series which should have been named "The Enchantments of our Modern Aladdins," if considered solely from the point of view of romance, is begun in the May Cosmopolitan. But these sketches possess as well a business interest equally for clerk and capitalist, for manufacturer, farmer and merchant. The man who would understand the drift of our news in finance and business must read these lives, so full of incident, of chance, of hard labor and marvelous success. As it is, the series receives only the commonplace name of "Captains of Industry." Each character is treated by a noted writer familiar with his subject.

The never-failing novel of the month in the June Lippincott is attractively named "A Real Daughter of the Revolution." It is by Caroline Gebhardt, whose Southern birth has inspired her to write of the struggle for liberty as it centres to a finish at Yorktown. The heroin is a beauty whose family are in sympathy with the Redcoats, but she releases their prisoner, her unacknowledged lover, sides with Sumter's raiders, and flouts the advances of the English commander, who is quartered on her father's plantation. The closing scenes at Yorktown are written with a patriotic ring that will thrill the descendants of the "Real Daughter of the Revolution."

Alone among the June magazines the Review of Reviews gives a graphic and comprehensive account of the Martinique catastrophe, illustrated from the most recent photographs taken on the ill-fated island. Mont Pelée's eruptions are described from the scientist's point of view by Dr. W. J. McGee, of the Bureau of Ethnology at Washington. The Review has

again distanced all its contemporaries, as it did during the Spanish War, in the journalistic treatment of historic events.

The editorial department of the Review of Reviews for May gives an excellent summary and exposition of the various measures before Congress. There are also illuminating paragraphs on foreign politics —the French elections, affairs in the far East, and the South African situation, with discriminating comment on the career of Cecil Rhodes and the purpose and probable results of his remarkable benefactions.

ABSTRACTS of the Leading Articles of the Month.

Albuminous Expectoration Following Thoracocentesis.

Reisman (Amer. Journ. of Med. Sciences, April, 1902) reports a case of a single woman aged 48, who a year previously, at the climacteric, began to suffer with shortness of breath and puffness of face and neck with occasional slight cough and periodic intense attacks of dyspnœa and orthopnœa. On examination, there was cyanosis and puffness of the face with rapid and difficult breathing, and over the inner end of the right clavicle a large hard gland could be felt. The right chest contained fluid and was aspirated, three pints of readily-frothing, yellowish fluid being drawn off. When nearly a quart had been drawn, a dry cough commenced followed by frothy expectoration, the patient becoming dyspnoeic and cyanosed. Morphine gave relief, and during the next six hours she expectorated above 5 oz. of clear amber-coloured fluid with a deep layer of froth. A fortnight later a second aspiration was required, as the chest was again full of fluid, and a large hard gland was noticed above the left clavicle, and sarcoma of the anterior mediastinum was diagnosed. The expectoration in such cases closely resembles the chest fluid, being richly albuminous, viscid, frothy, faintly alkaline, and of an amber colour, and it generally sets in after an interval of from a few minutes to half an hour after paracentesis, though longer intervals are recorded during which the patient experiences temporary relief followed by dyspnoea and a sense of oppression, with physical signs of pulmonary oedema as the expectoration increases. In the majority of instances recorded the amount of fluid aspirated was considerable and the withdrawal rapid. That the condition is due to pulmonary congestion with intense oedema, the time of onset, physical signs and post-mortem evidences go to prove, and the theory of "congestion by recoil" in a lung whose capillaries are altered by pressure so as to become more permeable for the transudation of serum into the air vesicles affords the best explanation of the condition. The treatment consists in counter-irritation, artificial respiration and venesection, and the administration of morphine with atropine for the severe cough; and as a preventive measure aspiration should always be performed slowly, and only a moderate quantity of fluid be removed at any one time, especially where cardiac disease or morbid conditions of the opposite lung, hindering expansion, are predisposing factors.

Analgesia by Intra-Spinal Cocainization.

R. E. Fort (Nashville Jour. Med. and Surg., vol. 91, no. 3.) presents a synoptical review of the present status of intra-rachidian analgesia. In conclusion he says:

1. Operations on the lower extremity from the knee downward. This includes one tibial sequestrotomy, one excision of astragalus and lower portion of tibia, one excision of astragalus and cuneiform bones, two amputations at the lower third of leg, one amputation at middle third of leg, one amputation of great toe, one curettage of indolent ulcer.

2. Operations upon thigh and groin, includes six inguinal adenectomies. One ligation of femoral artery in Hunter's canal, one ligation of femoral artery in Scarpa's triangle.

3. Extra-peritoneal operations in pelvic and ano-rectal regions. This includes one perineorrhaphy, one perineorhaphy and trachelorrhaphy, curettage seven, hemorrhoids three, incision and curettage of vulvo-vaginal abscess three, one excision of urethral caruncle, one cystoscopic examination, one fistula in ano, one perineorrhaphy and curettage, one excision and curettage of perirectal abscess, one curettage of perianal ulcer, one curettage and trachelorrhaphy.

4. Operations upon the genito-urinary tract. This includes one Bennett's operation for varicocele, two rapid divulsions of urethral strictures, one perineal lithotomy.

5. Abdomen. One appendectomy.

Fort finds that his observations enable him to conclude as follows:

1. Intraspinal cocainization will not replace general anesthesia, but has a wide range of usefulness in surgery below the diaphragm and in obstetrics.

2. The only two dangers (sepsis and cocaine toxemia) can be overcome. The first by surgical care in the preparation of the solution and the field of puncture; the

second by prophylactic and general measures used in combatting cocain toxemia.

3. The method is an easy one.

4. The post-operative symptoms observed are not serious and are trifling compared with the post-operative symptoms and sequlae of general anaesthesia.

5. No condition has been observed which contra-indicates its use. It has been used in all conditions which contra-indicate the use of general anaesthesia with the happiest results.

6. Therefore its use is imperative in conditions which contra-indicate general anesthesia.

Antral Disease.

Tilley's (British Medical Journal, April 19, 1902) experience leads him to believe that dental caries is by far the most frequent cause of chronic antral empyema. Although the crown of the tooth may seem healthy, there may be disease at its roots, carrying infection to the antrum. Abscess may be present between the roots of a tooth which possesses a healthy crown. The supposition that the dental trouble is secondary is hardly reconcilable with the histories of the cases. In some of his cases on which this paper was based, the ethmoidal, sphenoidal and frontal sinuses were also involved. The symptoms are diverse and the frequency of their variation is one of the striking features of the chronic antral suppuration. A straightforward case manifests itself by purulent nasal discharge, the patient only being conscious of an offensive smell. There may be also a congested or polypoid state brought on in the nasal mucosa and various degrees of nasal obstruction. During sleep the discharge tends to pass back into the pharynx, producing, on awakening, hawking and sniffing in the morning. Still more serious symptoms that call the patient to seek relief are headache and neuralgia—which may be intense; and the gastric symptoms due to gastritis from swallowing septic matter. Pharyngeal and laryngeal irritation may occasionally be present and in less frequent cases aural symptoms also occur. In one of his patients the symptom that led him to seek relief was the occasional discharge of blood into the mouth from the back of the nose. Taken altogether, he believes that antral suppuration is more common than is generally assumed and that many cases are overlooked. In making the prognosis, we must consider the original infections. The purely dental cases are the most hopeful. The period of time which has elapsed and the consequent degenerative changes, the general health of the patient, the persistence and regularity with which he will follow the prescribed treatment are also to be considered in the prognosis. If, with the symptoms mentioned, purulent discharge is seen in the middle meatus which accumulate after removal when the head has been held for a few minutes so as to drain the ostium and on transillumination the suspected antrum is less translucent than its fellow, the diagnosis is aided. Finally, intranasal exploration and irrigation of the antrum will give conclusive proof. In using transillumination we should remember that it is the infra-orbital translucencies rather than those of the cheek which must be compared. The opacity is due to a thickened mucous membrane of the antrum and not to an accumulated discharge and there is the possibility of mistakes from a tooth plate left in the mouth. Intense opacity in an adult extending from the orbit to the lower part of the cheek, and associated with pain and distension of the cheek, should suggest malignant disease. The treatment comprises two methods: the first is by drainage and irrigation through the opening in the alveolus, kept patent by a silver tube. The opening is generally made through the socket occupied by the first molar or the second bicuspid. The tubes should be removed twice daily, and some simple antiseptic lotion like boracic solution or Condy's fluid injected by a suitable syringe. The best form of the latter is a modification of Higginson's enema syringe. These injections may be less frequent as the discharge diminishes; even after the interval of a week, if no discharge returns with the lotion, the tube may be removed and the case considered cured. Occasionally the hemorrhage following alveolar puncture may be a little troublesome; neuralgia has been caused by too large a tube. In 34 of the 35 patients this was the method of treatment. In but one case was the second method employed, namely, the radical operation or exposure of the anterior surface of the antrum through an incision made along the gingivo-labial fold extending from the level of the molar to the canine tooth, and removal of a portion of the antral wall the size of a sixpense followed by curretting of the diseased mucous membrane lining the sinus. A counter-opening is made into the inferior meatus of the nose, which should be as large as the other. After thorough disinfection of the parts the sinus is plugged with a strip of antiseptic gauze, the proximal end of which is passed through the naso-antral opening and cut off level with the nostril. The bucco-antral wound is united by fine suture, or allowed to close by granulation as rapidly as possible. The packing is removed from the nose in forty-eight hours and irrigation is kept up through

the naso-antral opening for some three or four weeks, by which time the discharge should have ceased. He believes the aveolar method should be advised in the first instance because of its simplicity, drainage from the most dependent part, and the ease and shortness of the operation. The only exception he would make would be with a patient whose circumstances demand as short a treatment as possible and in whom one found the nasal mucosa in the middle meatal region in such a state of advanced polypoid degeneration as rendered it practically certain that a similar condition was present in the antrum where the only chance for success would be careful curettage followed by free drainage. Dr. Tilley mentions the infrequency of this operation because it has been recommended as a general operation by other authors.

A Note on Hypotastic Albuminuria of Splenic Origin.

Dr. H. D. Rolleston (Lancet, May, 1902) states the fact that in some patients with considerable splenic enlargement, rest in bed or in the recumbent position may be accomplished by albuminuria and that the albumin may disappear from the urine when the patient assumes the erect position. While the albuminuria is probably due to the mechanical pressure of the spleen on the left renal vein in the recumbent posture, the occurrence of this intermittent or hypostatic albuminuria is a very far from constant in cases of splenic enlargement. In this it resembles albuminuria from chronic venous engorgement induced in other ways, as in the backward pressure of mitral disease. It does not depend upon the size of the spleen for hypostatic albuminuria may be, and indeed, usually is, absent when the spleen is very large, and may be present when the spleen is relatively smaller. Further, the appearance of albuminuria in the recumbent position and its disappearance in the erect position is not absolutely constant even in those individuals with enlarged spleen in whom its presence has been noticed.

This hypostatic albuminuria is the reverse of what usually happeds in cyclical albuminuria.

Chemical Incompatibilities.

According to the Journal of the American Medical Association chemical incompatibility may be apparent in three ways:

1. By precipitation or the formation of insoluble compounds.

2. By the evolution of gas.

3. In some instances by changes in the color of the mixture.

The largest class is included in the formation of insoluble compounds by percipitation. This precipitation takes place when two salts, combined, form an insoluble salt by the interchange of radicals. The most important incompatibilities are included in the following table as arranged alphabetically by M. L. Neff, for the convenience of the practitioner.

1. Acids or acid salts are incompatible with alkalies and alkaline salts; alcohols (tinctures) and glycerine; hydrates and carbonates; glucosides; bases; relatively weak or volatile salts.

3. Alkalies are incompatible with: alkaloids and their salts; chloral; acids and their salts; relatively weak salts (halogens); metallic salts; calcium and magnesium salts.

3. Alkaloids and their salts with: alkalies; alkaline salts; halogen salts; tannic acid; phosphoric acid; boric acid and sodium borate; hydriodic acid; carbonic acid and the carbonates.

4. Arsenic is incompatible with: tannic acid; salts of metals, especially lead and silver, lime; magnesia.

5. Aqueous solutions are incompatible with: chloroform; metallic salts; essential and fixed oils; alcoholic tinctures; fluid extracts; resinous tinctures.

6. Hydragyri chloroform mite (calomel) with: antipyrin; alkalies (lime water, etc.); potassium iodide; salts of iron and lead.

7. Carbonic acid and carbonates are incompatible with: iron salts, metallic salts; (especially iron); salts of magnesium and calcium; acetic acid (syrupus scillae,)

8. Aqua calcis is incompatible with: salts of mercury (sometimes intentional); carbonates of alkalies; morphine and quinin salts.

9. Mucilages are incompatible with: alcohol and nitrous ether; iron; aqua plumbi; mineral acids.

10. Nitrous ether (sweet spirits of nitre) is incompatible with: tincture guaiac; mucilages; antipyrin; Ferri sulphas; most of the carbonates.

11. Oxidizing substances, including the permanganates, chlorates, nitrates, etc., are incompatible with: charcoal; ammonium chlorid; tanic acid; sulphur; glycerin.

12. Phosphoric acid and the phosphates are incompatible with: alkaloids; metallic; salts; salts of magnesium and calcium.

13. Tannic acid is incompatible with: alkaloids; metallic salts (especially iron and lead); arsenic; digitalis; albumins and gelatins.

14. Gentian preparations will produce a change of color in the mixture when combined with: iron salts; infusion of prunus virginianae; infusio cinchonate comp.; silver nitrate; lead salts.

Nervous and Mental Diseases.

C. Van Epps, M.D., (Womans Medical Journal) makes the following statement:

In sixty-two cases of spinal cord disease with lateral tract involvement, extension was present in thirty-nine cases, flexion in sixteen cases, no motion in seven cases. This series included cases of spinal syphilis, cerebral-spinal syphilis, myelitis, compression myelitis, traumatic myelitis, syringomyelia, multiple sclerosis, atazic paraplegia, spastic monoplegia. The conclusions to be derived from this study seem to be seven in number:

1. That an attempt to elicit the Babinski reflex in a normal adult may result rarely in extension of the toes.

2. For very young children no reliance can be placed upon the character of the response.

3. In children more than two years of age, the response is similar to that of the normal adult.

4. Of the diseases of the nervous system with no pyramidal tract involvement, tabes and neurasthenia may show typical extension.

5. In hemiplegia, extention is more frequently present on the paralyzed side, flexion on the sound side.

6. In diplegia, extension is more constant than flexion.

7. While in the cases of spinal cord disease with lateral tract involvement, those cases especially indicated by Babinski, only 63 per cent. showed extension, 26 per cent. responding with flexion of the toes.

The Mechanical and Operative Treatment of Tuberculosis and Other Affections of the Joints.

A. M. Phelps (New York Medical Journal, May 3, 1902) believes that mechanical treatment should always be employed from the beginning to the end of the disease and should not be commenced until the diagnosis of joint inflammation has been made. If the patient has been suffering pain, a few days' rest in bed should be prescribed, and as soon as the pain subsides braces or supports should be applied. These applications will restrict every motion of the joint, putting it absolutely at rest and effecting extension in proper lines for the relief of intra-articular pressure. It has also been found that the joints of the lower extremities require more protection than those of the upper extremities on account of the weight, and for this reason it is necessary that these joints be protected by braces. In children it is necessary to have the apparatus at least 2½ inches below the bottom of the foot and there should be a point of impact against the tuberosity of the ischium. By far the best supporter is one that has for its upper point of impact a steel ring, properly padded. In adults it is different and other forms of apparatus can be used. Dr. Phelps emphasizes the fact that no case of hip joint disease recovers inside of two years and the mistake that is constantly made is to remove the brace too soon. In knee joint disease, particularly in children, he knows of no better brace than Thomas's. In diseases of the shoulder joint he uses a pad adjusted into the axilla by passing adhesive strips around the arms and body, it throws the head of the bone away from the glenoid cavity and absolutely fixes it. In elbow joint disease plaster-of-Paris is the best dressing. In wrist joint disease plaster-of-Paris is very efficient, except when extreme spasm of the muscle is present. In spine disease the plaster-of-Paris and aluminum corsets are advised. His opinion in regard to operative treament is: 1. It is most important for the purpose of exploring the joint. 2. Any abscess of any kind should be immediately opened and cleaned out. In abscess of the wrist and hip-joint there should be no delay. Abscesses which have discharged into Scarpa's triangle should never be opened at that point. In disease of the bones of the knee nothing but curetting should ever be performed, and this may be repeated from time to time. In tarsal disease in children with suppuration immediate operation is required.

The Therapeutics of Cutaneous Diseases.

A. E. Carrier (Medical News, March 22, 1902) makes the following suggestions concerning the principles of local therapy:

1. The removal of all sources of irrritation to the skin. Inquiries may show that the occupation of the patient, the methods and material used for the purpose of keeping the skin clean, or the clothing that is worn may be the means of lighting up a skin affection, or of continuing it when occurring from some other cause.

2. Absolute cleanliness. This means rendering the skin aseptic. The removal of all disease products from skin lesions lessens the liability to secondary germ infection, while their decomposition furnishes an added irritant. A process of cleaning should be accomplished with the blandest of material, and the utmost gentleness to avoid irritation.

3. The relief of distressing subjective symptoms of pruritus, smarting, or pain. An infant suffering from an eczema will do more harm in a minute by its efforts to relieve the itching by scratching than we may be able to overcome by a week of appropriate treatment.

4. The selection of the proper vehicle for

the incorporation of the drug we are to use and a proper preparation of the application. Ointments and powders require the exercise of brain and muscle, if they are properly prepared, and a limited experience with pharmacists will convince any one that there is a great difference among them regarding the way in which these applications should be prepared. Success or failure in local treatment will largely depend upon properly compounded applications, and the writing of a prescription does not end our duty to the patient.

5. The proper application of the remedy. A fact that should always be remembered is that the intermittent application of even soothing remedies will have an irritant action upon the lesions, and hence the ordering of an ointment of oxid of zinc for an eczema, in which it is indicated to be applied morning and night, would be improper, for, if the remedy is indicated, the application must be constant apposition to the part as long as the indication lasts.

Treatment of Gholelithiasis.

J. B. McGee (Cleveland Medical Journal, Feb., 1902) says that medical treatment is so frequently successful that surgery ought not to be resorted to unless the case be very chronic in character, unrelieved by treatment, or when the stone is evidently very large and suppurative conditions arise. Morphine is necessary to control the attack at the beginning and is the best antispasmodic to use. Heat locally or mild counter-irritation may aid. In regard to the tendency to recurrent attacks Naunyn believes that internal medicines are of no value, while Chauffard says with confidence that "there should be no surgical treatment." The truth, doubtless, is that some cases respond to medical treatment and they should be given that chance. The objects desired are to increase and liquefy the bile, perhaps render aseptic, and possibly to exert an alterative action on the mucosa. The diet probably has very little influence, but the avoidance of fatty and rich foods and alcoholic liquors is to be recommended. One of the best remedies to increase the flow of bile is the free use of water and this may be advantageously combined with a little soda bicarbonate or phosphate. Olive oil is supposed by some to have an effect and its constituent oleic acid is now being recommended. The sodium salts seem to have a decided effect in aiding hepatic functions, and the benzoate, salicylate and phosphate are the forms preferred. The succinate of sodium is said to be of evident benefit. Murphy believes that jaundice, due to a catarrhal inflammation, may be readily cleared up by small doses of pilocarpine twice a day for a week or two and may thus be differentiated from jaundice due to obstruction

Embalming the Dead.

Dr. J. G. Garson (Lancet, May 10, 1902). In tempererate climates the best period to select for the process of embalming is about twenty-four hours after death, when, as a rule, rigor mortis has nearly passed off and the tissues have become relaxed but no marked signs of putrefaction have begun to show themselves. The presence of putrefactive changes is not, however, any bar to the operation, by which, not only will the further progress of these changes be at once stopped, but the parts which have become affected will be greatly improved, if not restored to their natural appearance. The artery usually selected for the purpose of injection is the femoral, in Scarpa's triangle, but the author prefers the abdominal aorta just below the umbilicus. At this spot it is easily reached by a median incision about seven or eight centimeters long through the anterior abdominal wall, from which, in the normally collapsed state of the parts after death, it is separated by only a short interval. In order to get the best results, it is important to inject the preservative fluid with as low and as continuous a pressure as possible. The continuous and regular pressure required is best obtained, either by compression of the air above the surface of the preservative fluid placed in a closed receptacle connected at its base by a tube with the artery through which it is to be introduced into the body, or by utilizing the force generated by the fluid itself in flowing from the receptacle placed at a higher level to the artery situated at a lower level. A good preservative solution for the blood-vessels should consist essentially of bichloride of mercury or some similarly acting salt and methylated spirit, and this may also be used for external application and for injection into the cavities and hollow viscera. The formula for the injection fluid for an adult male is as follows: Bichloride of mercury, from one and a half to two ounces (from forty-two to fifty-seven grammes); glycerine, from ten to eighty ounces (from 0.25 of a litre to 2.25 litres); and methylated spirit to two gallons (nine litres). Chloride of zinc has long been used for purposes of embalming and is an excellent preservative, but a much larger quantity of it is required than of corrosive sublimate. The most frequent complication that occurs in the course of an ordinary injection operation is the rupture of an artery. It generally takes place in the thorax or abdomen, and is usually the result of disease of the vessel or organ

in which it occurs. In such cases the ruptured vessel must be secured by ligature. Rupture of a vessel inside the skull is of little consequence, it being a closed box. The most troublesome cases to deal with are those in which general anasarca is present. When death has resulted from the bursting of an aneurysm in the thoracic or abdominal cavity, the injection should be performed from the ruptured vessel, which has to be exposed for the purpose.

Intravenous Infusion of Saline Solution.

Dr. George Crile (Medical News, May 3, 1902). In experiments in which the blood pressure had been lowered by a reasonable hemorrhage alone, saline infusion promptly restored the lost pressue. If the pressure had been lowered by the exhaustion of the vasomotor system of afferent impulses set up by an injury of the cerebrospinal or the sympathetic nervous system, the infusion would restore the pressure in proportion to the vasomotor exhaustion. If this mechanism has gone into resolution, infusion is without curative effect. The peripheral resistance determines the height of the blood pressure, no matter how swift the stream or how great the volume of blood. If the peripheral resistance is lost, no amount of infusion can do more than temporarily and partially restore the blood pressure, and death is inevitable. If the shock is much increased by regional accumulation of blood, as in operation on the splanchnic area, infusion may be effective because the peripheral resistance is still present. If hemorrhage complicates shock and the vasomotor mechanism is still intact infusion is effectual. His deductions explain why certain cases of shock are frequently but little, if at all, benefitted by saline infusion. It is true that in almost every case an artificial pulse may be produced, but it is without resistance. It will disappear quickly and no amount of infusion will sustain the circulation in such a case, because the vasomotor mechanism has gone into resolution, destroying peripheral resistance, hence no blood pressure can be created.

Pelvic Massage.

E. E. Montgomery (Therapeutic Gazette) says: The patient is placed upon a lounge or table with her clothing loosened, the limbs flexed, and the head and shoulders raised so as to relax the abdominal muscles. The operator sits or stands at her feet, introduces one or two fingers of one hand into the vagina, with the elbow of that arm supported by his knee, while the other hand is placed over the abdomen. The fingers of the internal hand are kept fixed firmly against the uterus, while the external hand makes a rotary motion upon the abdomen over the uterus, gradually increasing the force until the latter is outlined. The pressure is made upon its sides and posterior surface, now with the points of all the fingers, now with one, until the entire upper surface of the uterus is manipulated. When the organ is free, it can be readily projected against the abdominal wall, and in this way its entire surface manipulated. Its circulation is markedly influenced and the absorption of exudation expedited. In massage directed to adherent ovaries, the rotary motion is over so slight an arc as to appear a mere trembling of the fingers. Frequently pressure is best made with the point of one finger.

The *seances* should last from five to ten minutes. They should be given daily, during the menstrual flow as well as in the intervals. In the beginning the manipulation should be carefully practiced, avoiding sudden or violent motions. With the confidence and co-operation of the patient gained, the force can be increased until the fingers dip deeply into the pelvis, and in conjuction with the internal fingers forcibly stretch and even break adhesions.

Pelvic massage can be employed with advantage in uterine displacements, either anterior, posterior, or lateral, simple or complicated; in chronic inflammation of the uterus, tubes, and ovaries; in subacute and chronic peritonitis or cellulitis; for the removal of pelvic exudates and unfortunate adhesions after pelvic operations; this treatment will often relieve the patient from what would otherwise be unfortunate and crippling adhesions. The massage is contraindicated in all cases in which it is evident that recent pus collections are present; in suspected ectopic gestation or in recent internal hemorrhage; in ovarian cysts, unless very small. The procedure is absolutely criminal in every case of suspected malignant disease. Particular care should be practiced when there is suspicion of an unruptured ectopic gestation. The presence of pus need not be considered a bar to massage when the condition has existed for some time.

Massage has been condemned as being a form of masturbation of a woman by a man, but those who make such an assertion are ignorant of its practice.

While it is true that the mere touch of the finger to the genital tract of an erotic woman may cause an orgasm, yet the practice of massage is too painful to be at all pleasurable, and where there is a tendency to orgasm, it may be overcome by an increase of the pressure. The internal fingers are held quiescent, while the manipulation

is mainly exercised by the external hand, which is not in relation with the specially-sensitive organs.

The progress of the recovery can be enhanced by the introduction of a tampon cotton and gauze anointed with an ointment (1 to 5) of ichthyol in lanolin.

The Individuality of an Editor.

The following editorial recently appeared in the American Physician. It is worth reading, it deals fairly and truthfully with the subject:

The owning of a medical journal by the individual members of the profession may be as poor a policy as the owning of the same paper by a medical college, hospital, dispensary, or combination-tablet factory. It must be evident that if a medical journal is to be anything but a Congressional Record of excellent medical papers presented to the profession here and there by stockholders, that the journal will, in good time, become simply a mutual-admiration society report.

We have now some special reference to Gould's newest journal. Beginning with the defense of President McKinley's physicians down to date there has never been a line condemning any member in the profession for things, which several years ago, this same virlie editor would have made the welkin ring. Occasionally a little of the old fire of indignation finds vent at the point of his iridium-tipped pen; but it is quickly covered over with rose leaves of excuses.

From having at one time been a close scrutinizer of the pharmacal products which are hawked in the ad. pages in the majority of medical journals, he is now become a complacent tolerator of all. In short, the new weekly is a medical journal of the profession, paid for by the stockholding professsion—who, presumably, also pay the editorial salary—and it is a repetition of that old world-wise maxim of: his praise I sing whose bread I eat.

We appreciate the condition which confronts Dr. Gould. He got into trouble with his former journal because he told the truth a little too often; and one morning he and his old journal were summarily divorced. Now, he has established another and a larger journal—being a superb record of the medical doings of the profession—and has proven his ability to secure a reading clientele, in the face of the most vicious and determined opposition of several equally excellent journals; but, in order to do so, as we take it, he has set aside his individuality, and become the purveyor of letter-perfect papers, with the assistance of a corps of others wbo scan the medical literature of the day and fill each his allotted space with matter.

If Dr. Gould has not completely changed his nature we would venture the guess that in time, if not already, he will look back with pleasant sorrow to the individuality and freedom of his Medical news with its possibly smaller clientele. A true editor, like a true preacher, or lawyer, must write or work from the heart. American Medicine is beyond question a large, financial success which will pay dividends upon every dollar invested. It is a well-built-up corporation, stanch and reliable, furnishing the best of medical information. But If George Gould should die between two days he wouldn't be missed. A hundred other men could carry on his present journal.

If we seem to unpleasantly criticise Dr. Gould and his journal, we beg to explain that such is not our wish or intent. American Medicine is a first-class medical resume but we have lost the virile George. M. Gould.

The Diagnosis of Acute Endocarditis.

Kelly (Univ. Penns. Bull.) points out the difficulty there is in many cases in sharply separating acute benign endocarditis from ulcerative or infective endocarditis. All cases of acute endocarditis are associated with if not due to bacteria, and the same bacteria are found in ulcerative and non-ulcerative cases. He regards acute endocarditis as a single process, due to toxins or bacteria in the blood, with a local lesion in the heart. The heart leison may be primary or secondary; the intensity and extent of the heart leison depend upon the virulence of the infecting agent and the resistance of tisshes; the nature of the infecting agent is of less importance than its virulence; the condition may be the result of a mono-infection or of a mixed infection. Three cases of ulcerative endocarditis are recorded and the differential diagnosis discussed. The importance of retinal hæmorrhages, embolic phenomena, etc., is pointed out. The author specially emphasizes the diagnostic importance of leucocytosis, bacteriological examination of the blood, and of a peculiar arrhythmia or instability of the heart. The leucocytosis is usually moderate, 15,000 to 35,000 leucocytes being present in 1 c.mm. of blood. The important point about the leucocytosis is the relative increase of the polymorphonuclear white cells; the leucocytosis is a polymorphonuclear leucocytosis. Bacteriological examination of the blood is sometimes of great value. The blood should be drawn from one of the small veins—preferably of the arm or forearm—under strict aseptic pre-

cautions. At least 5 c. cm. of blood must be withdrawn by an aseptic syringe, and before it has had time to clot it should be allowed to flow over the surface of agar or blood serum slants, which should then be placed in the incubator at a temperature of 37 deg C. In a case recorded the blood was found to contain the staphylococcus pyogenes aureus. Taken in connexion with other manifestations of the disease, a peculiar arrhythmia or instability of the heart's action indicates that the septic process has implicated the heart. Whilst the heart is being examined sudden attacks of tachycardia occur; the heart suddenly beats very rapidly—150 per minute or more—and after several minutes the rapid action suddenly ceases.

Hernia of Meckel's Diverticulum.

R. E. Webster, (Annals of Surgery, April 1902, reports the case of Miss O'R., aged 42 years who was admitted to hospital October 11, 1901, giving the following history:

Three days before admission she fell down a cellar stairway, since when she has had severe abdominal pain and almost continuous vomiting. Bowels were moved by a purgative taken after the accident occurred.

On examination the abdomen was found to be greatly distended, and a large tender mass noticed in the left inguinal region occupying the inguinal canal. The patient states that she has frequently noticed a similar lump here, which was sometimes painful and which generally disappeared on lying down. Partial reduction of the hernia was easily accomplished by a member of the house staff, but a hard mass was still present in the inguinal canal. The bowels moved shortly afterwards, showing a good deal of blood in the stools. The symptoms of pain and distention somewhat abated, and the patient was prepared for operation. The patient being anesthetized, the external ring and the sac and contents were carefully dissected out.

On opening the sac, a cylindrical mass looking like intestine was discovered, and on carefully opening the internal ring and separating the adhesions this was found to be a Meckel's diverticulum proceeding from close to the mesenteric border of the ileum, having a well-defined mesentery of its own. The mesentry was tied off and the diverticulum removed close to the ileum and the opening in the bowel which was of sufficient calibre to admit the tip of a finger closed by a double row of Lembert sutures.

The diverticulum measured three and a half inches in length. The intestinal lumen was continuous for about three inches, the diverticulum ending in a mass showing some old inflammatory thickening. There was a good deal of inflammatory thickening of the ileum surrounding the diverticulum, showing where that portion had been constricted in the inguinal ring. The operation was completed by suturing the rings for a radical cure of the hernia. The patient made an uninterrupted recover.

Neurasthenia: Its Etiology, Symptomatology and Treatment.

A. D. Rockwell (International Medical Magazine) says that, in his own experience, electricity has proven the best remedy. There is, however, a most marked variation in the susceptibility of patients to this therapeutic agent. There are cases in which anything over ten or fifteen milliamperes on any part of the body seems to provoke irritability, while one-half this strength applied to the head becomes decidedly disturbing. On the other hand, there are neurasthenics whose very disease seems to make them equal to the endurance of unusual strength of current, which it is found necessary to decrease as improvement progresses. Static electricty is especially valuable in conditions of disturbed circulation resulting in local congestions. He highly extols the action of static electricity in these conditions. The circulation is equalized, and especially as a tonic and sedative its good effects are not slow in manifestating themselves In connection with prolonged applications of the high gtension in dution current over the kidneys, he has observed in several instances the disappearance from the urine of both albumin and casts.

Obstruction of the Coronary Arteries.

Cowan (Glasgow Medical Journal, April, 1902), records his observations as follows:

"1. The coronary arteries may be obstructed (*a*) at their origin; (*b*) in their course. 2. If the obstruction involves a main artery and the closure is gradual, compensatory enlargement of the other artery may prevent damage to the cardiac muscle, but perfect compensation is rare, and necrosis or fibroid change commonly ensues; if, however, the closure is rapid, sudden death is the usual result. 3. If the obstruction involves a small artery, no compensatory arrangement is possible, and the nutrition of the cardiac muscle will suffer, whether the closure is rapid or gradual. 4. (*a*) If the obstruction is partial, some of the muscles may ultimately degenerate (granular or fatty degeneration) and may ultimately dissappear and be replaced by fibrous tissue. (*b*) If the obstruction is complete, some of the muscles will become necrosed (infract) and

the patient may die from slow cardiac failure or from rupture of the heart; if, however, the infract is of small size, healing may take place, and a fibroid scar be ultimately formed."

A Fallacious Test for Ascetone in the Urine.

C. F. Crowley (Druggist Circular, May, 1902) makes the following statement:

It is now a conceded fact Almen's guaiac test is of little value as a positive indication of the presence of blood, as many such substances as iodides, bromides, etc., also give the Almen reaction. In laboratory practice where substances unknown to the student are given him for analysis, it is quite usual to color solutions with cochineal. Old solutions of cochineal undergo a change which makes them quite similar to old blood solutions both in color and reaction. The Almen test will respond with such cochineal solutions. In the urine in such cases recourse must be made to the spectroscope and microscope.

Analogous to the above is a test cited for the detection of acetone in the urine (acetonuria)—the so-called magenta test, consisting of adding the suspected acetone to a decolorized solution of fuchsin. The decolorization is usually effected by means of sulphurous anhydrid and the addition of acetone to this latter produces a violet coloration.

The positive value of this test is nullified by the fact that many other substances will restore the fuchsin color. Great care must be exercised as regards temperature, for any noticeable degree of heat will neutralize the decolorizing effect of the sulpurous anhydrid. Formaldehyd which may have been added to urine to prevent decomposition will give the same reaction with decolorized magenta as acetone—in fact more violent.

The conclusion to be adduced from these data is that just as Almen's reaction is not trustworthy as a test for blood, so is the magenta reaction not reliable as a positive evidence of the presence of acetone. The converse, however, is true namely, that the failure to procure the reaction is a proof that acetone is not present.

Bacteria and Tobacco.

Dr. Richard Travers Smith (Dublin Journal of Medical Science), says:

"Time will only permit mention of one more industrial application of bacteria, for the list is hopelessly long to attempt completion. The one I shall choose is the manufacture of smoking tobacco, since its widespread employment appeals to the senses of both smokers and non-smokers. Before tobacco leaves are sent to the manufacturers they are fermented in heaps. Subsequently they are cured in a great variety of methods in all of which fermentation is largely employed. The fermentations necessary to produce smokeable tobacco are the work of bacteria. These bacteria have been the subjects of extensive experimentations, from which it has been concluded that the flavor of tobacco, far from being entirely attributable to the plant itself, or the locality in which it is grown, is largely in the hands of bacteria. Dexterous manipulation of the varieties of bacteria isolated from tobacco in process of curing has enabled the industrial bacteriologist to impart the flavor and aroma of Havana cigars to tobacco leaves hitherto less highly prized."

Cirrhosis of the Liver in Infancy and Childhood.

Walls (Pediatrics, March 15, 1902) says that although acute hepatitis is of frequent occurrence it is most unusual to meet with a case of cirrhosis in infancy or childhood. In less than 20% of the recorded cases an alcoholic history has been obtained. Syphilis is an etiologic factor in about 10% of the cases. Acquired syphilis is not considered. Tuberculosis is a relatively frequent causative factor. Chronic sepsis, especially associated with chronic peritonitis, has been an occasional factor. Cirrhosis secondary to the nutmeg liver of heart disease is reported a few times. In childhood the cirrhosis is more often of the mixed type than either the pure atrophic or hypertrophic form. The general development is tardy, the child small and puny for its years, the nutrition poor and the individual emaciated. Severe gastro-intestinal symptoms precede and accompany the cirrhosis. Icterus is present in 70% of the cases. Ascities is present in over one-half of the cases and hemorrhages from mouth, nose, stomach and intestine are a frequent symptom. The prognosis is unfavorable and the course rapid, the disease terminating, as a rule, within a year, some children only living a month. Death results from toxemia, exhaustion, hemorrhage or a terminal inflammation of the serous organs. Therapy up to the present time has been useless.

Photography in the Early Diagnosis of Typhoid.

Heneage Gibbes (British Medical Journal, March 22, 1902), believes that by the use of orthochromatic plates the characteristic typhoidal eruption can be proven present befor it can be either seen or felt. The procedure is a simple one. The head and face should be covered and the abdominal

region of the patient exposed. A bit of printed matter should be stuck to the skin to help in determining the focus. The most rapid of the orthochromatic plates are used and out of a series of six exposures one should find at least two plates which show the eruption. An assistant should throw light on the abdomen from a mirror. No rule can be laid down to govern the exposure, but if the developing be carried on most carefully a certain amount of variation in exposure can be cared for. A very weak hydrokinon or paramol solution gives the very best results. In making a Widal test should the reaction be indefinite, an orthochromatic plate will generally show the spots, if the case be typhoidal, and thus clear away doubt. Because of the annoyance caused the patient and because of the difficulty in arranging the apparatus, it is suggested that a telephoto appliance be used. If this will give as good results as the ordinary instrument it would seem that one has in photography a most valuable aid in positively establishing diagnoses in questionable cases.

Chloroform and Sudden Death.

E. H. Embley (Jour. of Physiol., Mch. 27, 1902), after a series of experiments on two-hundred and ninety-eight dogs, found that no sudden failure occurred from the action of chloroform upon the insolated heart; that the fall of blood-pressure was gradual or steep according to the percentage of chloroform vapor in the air administered; that there was no abrupt variation in the rate or efficiency of the heart such as occurs in an animal with an intact nervous system. On the insolated heart, chloroform has an immediate and progressively paralytic action; there is no preliminary period of stimulation and there is no sudden change in the rate or force of the heart beat. Heart muscle is very sensitive to the poisonous effect of chloroform. In the administration of chloroform by inhalation to the intact animal, the vapor tension of the chloroform in the blood only slowly reaches that of the inspired air. The investigation of the effect of chloroform upon the cardio-inhibitory mechanism, showed that chloroform raises the excitability of the vagus mechanism, particularly in the early part of the administration; that the increased excitability is due to the action of the chloroform on the vagus roots, and that the inhibitory action is more intense from being exercised upon a heart the native excitability of which is diminished by the action of chloroform upon it. This drug, when administered to morphinized dogs in air containing not more than 1.5 per cent. of the vapor, atfer a period of mild excitation slowly depresses vagus excitability. The latter may again be raised according to the duration of the administration of the endurance of the vagus by increasing the percentage strength of the vapor or by asphyxia. Section of the vagi or atropinization in dogs absolutely abolishes sudden heart arrest from chloroform. The heart under such conditions fails slowly with rapid pulse and diminished contraction volume. The danger of vagus inhibition of the heart lies chiefly in the earlier part of the administration before the initial increased excitability of the vagus mechanism has been succeeded by diminution. These results show that at least in dogs vagus inhibition is the great factor in the causation of sudden death from chloroform. Failure of respiration is mainly to be attributed to fall of blood-pressure. With a good blood-pressure failure of respiration by inhalation of chloroform is practically impossible. Restoration of failed respiration is dependent upon restoration of blood-pressure.

Feeding After Weaning.

W. A. Worthridge, (Brooklyn Med. Jour., vol. 16, no 4) arrives at these conclusions:

Starch containing foods can be digested but little during the first six months of life.

When a quality of starch can be converted, the milk sugar may be decreased or discontinued.

When the baby is a year old, if eight teeth or more are erupted, certain easily digested, semi-solid foods may be given in small quantities except during the hot weather.

An improper food administered diminishes the digestive powers. If taken often disease commonly results.

Condensed milk or sterilized milk should not be given as an exclusive diet. Malnutrition results.

The food should be Pasteurized, viz., heated from 155 deg. to 167 deg.F for twenty minutes, not sterilized.

An infant will thrive upon the food that agrees with it individually. No one food or formula will suit all of the same age.

Modified milk comes nearest to suiting all; but even here there must be constant alteration until the individual needs are satisfied.

In infant feeding the exclusive use of any one food for a long time is to be deprecated.

If weaning is necessary at any time from birth to the sixth month, no food should be given as a rule, except modified cows' milk.

After the ninth month, a starch containing food may be added.

The state of health of the infant greatly modifies the quantity and quality of the food which may be given.

The summer season is very dangerous to the artificially fed. Up to two years the diet should consist of a liquid, easily digested food; from June 15 to October 15.

Meat should not be given at all during the first three years of life. Meat juice is very valuable.

Parents should be labored with and instructed not to give table food and should be told what food is proper.

Deciduoma Malignum.

Ladinski (American Journal of Obstetrics, April, 1902) considers it a special form of malignant disease associated with the reproductive function and different from the ordinary malignant uterine growths. The clinical features which should aid us in reaching a diagnosis are: "1. History of recent parturition or abortion, especially if a hydatid mole has been discharged or placenta retained; 2, profuse hemorrhage occuring at irregular intervals, without apparent cause, not amenable to the ordinary means of treatment and which recurs in spite of repeated curettages, there being a constant sanguineous discharge during the intervals between hemorrhage; 3, a persistently large and hyperplastic uterus and cervix, with a patulous os; 4, pain in the pelvis; 5, anemia, rapid loss of flesh and strength and cachexia; 6, characteristic nodule in interior of uterus in the early stage; 7, the presence of metastatic deposits, especially in the vagina and lungs, the latter producing cough and bloody expectoration." The prognosis is bad though there are records of 51 recoveries out of 124 cases. It should be remembered that recoveries are reported where only the immediate results of treatment are recorded and the mortality loss would probably be much increased if the data were complete. The causes of death in these cases were metastases in other organs in 47 cases, labor and exhaustion in 20, perforation of the uterus and uterine hemorrhage in 4 cases, operation, shock and sepsis in 2 cases. The lapse of time between the termination of pregnancy and death as it occurred after mole, labor at term or abortion were from three days to six years in mole, and two weeks to one and one-half years in abortion cases and from one to nine months after labor at term. The average was from four to six months. The only treatment is the operative; especially in any case of hydatid mole the pregnant uterus should be emptied as soon as possible after the character of the pregnancy is ascertained. If microscopic examination of the cyst shows any atypical proliferating cells or if there are any symptoms of malignant degeneration of the uterus, he thinks it is within the limits of conservatism to agree with Neumann that the uterus should be extirpated. Every patient whose history is the least suspicious should be submitted to a microscopic examination and thorough exploration at the earliest possible opportunity.

Goat's Milk.

Dr. Marfan (Therapeutic Gazette) has shown that in fresh milk there are certain zymoses which are destroyed by heat. The goat's milk does not contain any more casein than woman's milk and, according to Crepin's analysis the amount of casein and butter is about the same as in human milk. Dr. Boissard, obstetrician of the Paris hospitals, published last year a report on the results given by the use of goat's milk, and the latter were favorable. There is a special establishment in Paris where goats from the French and the Swiss Alps are kept. The greatest cleanliness is observed, the dugs being washed at milking time with boiled water; the milkmen are obliged to wash their hands with soap; the bottles and milk cans are sterilized by being boiled in a solution of carbonate of sodium. It is a well-known fact that the goat does not readily contract tuberculosis and this of course is a gurantee of some importance.

The Heart in Diphtheria.

Charles Bolton (Edinburgh Med. Jour. April, 1902) says: It may be stated that now the majority of deaths from diphtheria are the result of heart failure, for it cannot be doubted that many of the cases which now show signs of cardiac failure would have died had they been treated without antitoxin.

Death resulting from the severity of the toxic poisoning is due to a primary failure of the heart. The class of cases which die in this way comprises essentially the severe faucial cases in which the nose is usually also involved and sometimes the larynx. Primary laryngeal cases rarely show heart failure, whereas wound diphtheria is very fatal through cardiac failure. Cases of severe toxemia in which there are subcutaneous hemorrhages, with or without bleeding from the mucous membranes are apparently always fatal during the acute stage, from progressive heart failure. The average time of death is the tenth day of the disease, the earliest being the third or fourth, and the latest the fifteenth day; and it may be stated generally that except in a few cases, death usually takes place

some time during the first fortnight of the disease.

Heart failure in the majority of cases sets in a few days before death; and although death may occur in the same day as the first signs are noticed, yet life may be prolonged for a week or even longer after the symptoms of heart failure have appeared and all hope of saving the patient has been abandoned.

The first sign is noticed in the pulse, which becomes irregular in force and rhythm, the compressibility being always increased. It is, as a rule, rapid, but at times it is slow. Sometimes before death it becomes remarkably slow, and this slowing is a very fatal sign. The pulse becomes progresssively weaker and more irregular till it is imperceptible, and in this conditon the patient may linger for hours or even days, to finally die from syncope. While the pulse is irregular the patient may die quite suddenly if an extra strain is thrown upon the heart, as, for instance, vomiting or struggling. The cardiac impulse may be diffuse and slapping but this is not always seen. Occasionally the patient may experience severe precordial pain which is by no means common. The face is remarkably pale and waxy-looking, the lips are cyanosed. and, as the pulse fails, the extremities become cold and the patient restless; the respirations sometimes have a peculiar sighing character. Consciousness is retained to the end, the patient in some cases looking quite bright, so that the friends are hopeful and will not believe the prophecy of death. Vomiting may or may not occur, and when it does it usually commences after the irregularity of the pulse has indicated the onset of heart failure. The urine generally contains albumin, and in a few cases it may be entirely suppressed for a day or more before death. The temperature in the worst cases is often low.

Cardiac thrombosis.—Cardiac thrombosis is a rare cause of death in diphtheria. It was formerly thought that sudden death in this malady was due to this cause, but the fallacy of this view is now apparent.

Three cases of cardiac thrombosis are recorded by Dr. Woollacott (Lancet, London, 1899, vol. 1, p. 1217) the first of which the author had the good fortune to witness. They were all severe cases, one being complicated by scarlet fever and suppurative adenitis and the other two by faucial ulceration, so that a secondary infection was possible in each case. Two died within the first three weeks of the disease and the third on the twenty-sixth day. From these cases it appears that the chief symptoms of this condition are severe precordial pain with some variety of altered respiration and restlessness, the onset of the pain being more or less sudden. Sudden death did not occur, the heart failure being gradual and the patients surviving for several hours after the onset of the pain. The pulse was rapid but regular before the heart began to fail and when the heart dilated the pulse became irregular. There was vomiting in each case preceding the above symptoms. Paralysis was present in two of the cases.

In two of the cases infarcts were present; in one, in the kidney and spleen, the thrombus being situated at the apex of the left ventricle, and in the other the infarcts were in the lung, a thrombus being found at the apex of each ventricle and in the right auricle. In the case without infarction the clot was situated in the right ventricle at the apex and in the right auricle. The clots were breaking down and had evidently been there long before the onset of the pain, which Dr. Woollacott attributes to dilatation and distension of the heart.

Embolism of the popliteal artery, with gangrene of the limb, and hemiplegia due to cerebral embolism, have been recorded in diphtheria.

It is quite conceivable, as Dr. Woollacott points out, that sudden death might easily arise; but such was not the course of events in these cases.

Death during convalescence.—After the acute stage of the disease has passed, death from heart failure is usually associated with paralysis, and is especially seen in cases of generalized paralysis affecting the palate, pharynx, larynx and diaphragm. It is by no means the invariable rule for patients extensively paralyzed to die from heart failure, as many die from lung complications, and when this does happen the heart failure is frequently found to be secondary to some strain, as for instance, vomiting or the shock caused by severe pain. In other cases the heart failure is only a part of the generally enfeebled condition of the patient, and presents no peculiarities. This is especially seen in those cases of marked wasting in which food cannot be retained by stomach or rectum. The heart failure in these cases of paralysis is evidenced by irregularity of the pulse, as in the acute stage, but there is no progressive enfeeblement of the circulation and death within a definite period of time as in the acute toxic cases. At this late period of the disease it is by no means so uniformly fatal, as a patient may be rendered pulseless by vomiting and yet recover.

Sudden death.—Sudden death from syncope may occur at any stage of diphtheria, but the alarming cases are those which occur when convalescence is established and

the patient is thought to be quite free from danger. These sudden deaths are all referable to some strain which has been thrown upon a heart which is unprepared to meet it.

When the heart shows the physical signs of dilatation, the cardiac impluse is displaced outwards towards the left anterior axillary line, and is more or less diffuse and slapping in character. The percussion note extends a little further to the left than normal. On auscultation the first sound is short and sharp, and sometimes a systolic murmur may be heard at the apex, the pulmonary sound being accentuated. The point on which more stress should be laid is the diffuse character of the cardiac impulse and its displacement outwards, especially when it has previously been found in the normal situation.

After a consideration of the various forms of heart failure occuring during the different stages of diphtheria the very great danger to which patients during the whole course of the disease are liable, as a result of acute degeneration of the neuro-muscular mechanism of the heart, is at once apparent. This danger can only be rendered evident by a thorough and systematic examination of the heart and pulse in every case of diphtheria, however mild it may appear to be; and it can be best guarded against by keeping the patient in bed, or at least perfectly free from all excitement and strain, as long as there are any signs of heart failure, as shown by an irregular pulse or the physical signs of cardiac dilatation.

Potato Diet in Diabetics.

M. Mosse (The Lancet, Jan., 4, 1902), supports the theory recently put forward by Dujardin-Beaumetz that of all starchy substances potato is the least harmful to diabetics, and holds that it is actually beneficial and constitutes an essential element in the treatment of diabetes. He gives potato in place of the ordinary ration of bread, in proportion of three times the weight.

Far from increasing the sugar, the use of potato diminishes its output, and clinical examination of the urine shows that the carbohydrates of the potato are absorbed and utilized. The results are better in that form of diabetes which is marked by thinness than in the fat form. The potato containing weight for weight twice the amount of water that bread does and nearly the same quantity of potassium salts, a patient taking three times as much by weight of potato as he would of bread gets six times as much water and three times as much potassium salts, while the starchy matter remains unchanged. Potassium salts are an integral part of the alkaline treatment of diabetes, and the good which they do easily counterbalances the harm done by the ingestion of the starchy matter. Under the potato treatment, the sugar disappears, and the appetite and general health improve

Puerperal Insanity.

Robert Jones (Brit. Med. Jour., Mch. 8 and 15, 1902). Judging from the author's statistics, gathered in the London County Asylum, Claybury, that the pregnant condition renders woman less liable to insanity than during any other period of her life. In this institution the number of cases admitted would show that puerperal insanity develops in about one case in every seven hundred confinements. According to the English Lunacy Commission for 1900, the actual insanity including this variety, during the reproductive life, shows a percentage of admissions to institutions varying from 7.2 per cent. in the better classes to 8.41 per cent. in the poorer classes. The Annual Report of the Asylums of London for the same year shows 120 puerperal cases in 2,600 female patients admitted, which is less than 5 per cent., but a large number of this total were transfers of chronic cases from other asylums. During this year there were 132 652 births in London, which would give an approximate ratio of one case of puerperal insanity to every 1,100 births. The usual divisions of the disease in its classification is as follows: (1) Insanity which occurs during pregnancy; (2) that which occurs from the date of parturition to six weeks after confinement; (3) lactation insanity occurring six weeks after confinement. He does not think there is a particular type associated with either pregnancy or lactation, but with parturition and the period immediately succeeding, the insanity presents such a marked delirium with wildness and delusions of a hallucinatory character, in which religious and erotic features becomes so prominent that one can recognize an almost distinct nosological entity. Twenty-five per cent. of 56 cases of primiparæ exhibited puerperal insanity, and 78 per cent. of these were unmarried women. Insanity is more common when the child is of the male sex. In the puerperal cases, more suffered from mania than melancholia, and, again, more from the acute form of mania than the same of melancholia. Of 120 cases only one was epileptic. On the other hand in the 83 lactation cases, a greater proportion suffered from the depressed than from the exalted variety of insanity. Gradual onset characterizes the advent of melancholia twice as often as mania and the

gradual onset more often terminates in dementia. In melancholia cases, before admission to the institutions there is more of a tendency to wander away from home. Of 259 cases 129, or nearly 50 per cent., had some hereditary predisposition, either physically or mentally, and this included direct and collateral insanity, epilepsy, suicide, intemperance, phthisis, etc. The lactation variety occurs most often between the ages of thirty and thirty-four—a fact which supports the view of exhaustion as an etiologic factor. The insanity of pregnancy and of the puerperium is oftenest met with between the ages of twenty-five and twenty-nine. Authorities consider this form of insanity the most recoverable. As to prognosis of the different types that occurring in early pregnancy is favorable; that occurring later is apt to continue in an exaggerated degree until after confinement and during the puerperal period and afterward become chronic; most of the puerperal cases get well rapidly. Insanity during lactation has a tendency to recover, but warning must be sounded against the risk of low forms of inflammatory diseases indicating a general want of recuperative power and a low state of nutritive tone. Albuminuria is not common, but when present gives a grave prognosis. Clouston stated that the insanity of pregnancy rarely passes off before confinement. The death-rate is highest in the insanity of pregnancy and lowest in the puerperal cases. Treatment has no direct effect upon the disordered mind. The treatment of disorders during the physiological period must depend upon whether the stage be (1) that of pregnancy, (2) that of childbirth, or (3) that of the puerperium. In general the pregnant woman should have a light dietary, gentle exercise, bright surroundings, attention to the bowels by mild saline aperients, and sleep by mild hypnotics, such as chloral and bromides in combination. In the puerperal form, the woman should be sent away from home. The wet pack is recommended for the mania. Alcoholic stimulants are absolutely necessary. Sleeplessness should be combated by chloral and bromides. Paraldehyde is satisfactory. The return of the menses may be looked upon as a forerunner of permanent mental improvement and means to encourage this should not be omitted.

A Case of Chloroma, with Pathological Report and some Notes Descriptive of the Disease.

Dunlop (British Medical Journal, May 3, 1902) reports this case occurring in a boy, aged 5 years. For a year before coming under observation, patches of ecchymosis were frequently noticed under the skin; any scratch would immediately suppurate; and at one time there was albuminuria. When admitted to the hospital, the nutrition was poor, the complexion of a waxy yellow tint, numerous petechiæ were scattered over the body; there was puffiness of the face, protrusion of both eyeballs, enlarged cervical glands, the voice was whispering, hemic bruits were heard over the cervical vessels, and the pulse was accelerated and irregular in time and force. Smooth hard tumors developed on the eyelids, the jaws and in the temporal regions; the tumors in the eyelids became pale green in color, jelly-like in consistence and gradually covered both eyeballs, Deafness and optic neuritis appeared, the prostration became greater and death occurred 2 months after admission. The leukocytes just before death numbered 123,000, the erythrocytes 815,000, and the hemoglobin was estimated at 12%. Careful notes of the post mortem was given. The tumors are best described as lymphosarcomata, resembling lymphomata in their histological structure and simulating sarcomata in the fact that they arise from the periostum and give rise to metastases. Greenish masses were found scattered throughout the internal organs, excepting the brain and spinal cord, and invading the marrow and periosteum of the bones. There were 2 greenish patches in the heart muscle, a phenomenon observed in only one other case. The writer has collected 27 cases; 16 were under 15 years, 7 between 15 and 20 years, 3 over 30 years, and in one the age was not mentioned. Nineteen were males and 7 were females, the sex of one not being mentioned. This is probably the first case in which the diagnosis was made during life. Before the appearance of the tumors a diagnosis would be impossible, and we have only the symptoms of leukemia to guide us—anemia, prostration and hemorrhages. When subsequent to these symptoms exophthalmos, failing sight, deafness and tumors develop, the diagnosis of chloroma should always suggest itself.

Report of a Case of Fibrinous Bronchitis, With a Review of all cases in Literature.

Bettermann (American Journal of the Medical Sciences) reports a case of fibrinous bronchitis occurring in a negress, 22 years of age, who for several years had had in the Fall attacks of cough with copious expectoration in which casts of the bronchi were found. These casts contained a very small amount of fibrin which was chiefly in the outer layer, a reticular or fibrillar ground substance enclosing numerous cells, and in addition, certain bodies from 7 to 15

micron in diameter, which strained deeply by fuchsin, (as used for tubercle bacilli) and also retained the Weigert stain. Unna's polychrome methylene blue stain gave the mucine reaction. An analysis of all the cases recorded in the literature shows that they can be grouped in 9 classes as follows: 1. Chronic bronchitis with expectoration of branching casts of the bronchial tree. 2. Acute bronchitis with expectoration of branching casts of the bronchial tree. 3. Cases in which branching casts were not expectorated, but were found in the bronchi at autopsy. 4. Casts expectorated but not showing branching. 5. Branching casts expectorated associated with organic heart disease. 6. Branching casts expectorated in pulmonary tuberculosis. 7. Small casts, often non-branching, associated with asthma. 8. Casts in the bronchia associated with pulmonary edema following thoracentesis. 9. Cases incompletely reported. Bettmann gives a careful analysis of the symptoms of these groups. The most important form is the first, and the results show that it occurs in either sex, increases to middle age, and then declines, and in several cases the patients were exposed to dusty atmospheres. Occasionally some infectious disease precedes the attack, or there may be some chemical irritant, or a family history of tuberculosis. Nearly all the patients had suffered from chronic bronchitis for some time. The symptoms consists of an exacerbation of chronic catarrh. The disease is paroxysmal and may last for many years. The symptoms are dyspnea, cough, occasionally slight fever, and very occasionally hemoptysis. The physical signs are not characteristic, and there may be all types of rales, and the patient may emaciate considerably. The subjective symptoms are usually oppression and tightness until the cast is expectorated. A curious feature is that in many cases there have been an associated affection of the skin. Of these casts examined the majority were composed of mucin. The bronchial mucous membrane usually does not show any characteristic change. In the acute form the symptoms are somewhat similar, but there is usually a history of an acute infectious disease.

Pemphigus.

Grosvenor (Buffalo Medical Journal, April, 1902) states that pemphigus never occurs without the bullous eruption which appears in successive crops and never exhibits the characteristics of other diseases. The diagnosis is easy in its fully developed stage, but difficult in its beginning and later stages.

When bullæ appear in a case of syphilis a syphilitic history and antecedents can usually be elicited. The eruption in such cases is almost invariably in children, and is present on soles of feet and palms of hands.

In eczema of hands the bullæ are formed by confluence of vesicles; pemphigus is rare on hands and fingers and skin is not infiltrated. In ecthyma cachecticum the pustules are not true bullæ and ulcerations are deep. In rupia the bullæ are smaller and flatter than in pemphigus; contents are thick and dark and ulcerations deep. Pemphigus foliaceus, when the blebs become scaly, may resemble pityriasis rubra; in the latter there are no bullæ. In impetigo contagiosa the bullæ are never distended as in pemphigus, but are flat. The former is a pustular disease. In bullæ of lepra there is usually cutaneous anæsthesia. The blebs generally leave behind signs of atrophy on their basis. In herpes iris the eruption is rather vesicular than bullous, and disappears more rapidly than the eruption of pemphigus.

Although bullæ appear in urticaria and erythema multiforme, these diseases are easily recognized by characteristic symptoms.

Pemphigus vegetans has sometimes been confounded with syphilis because the eruption in both diseases often appear about the ano-genital region, and the eruption of pemphigus vegetans resembles the condylomata of syphilis. Ulcerations in the mouth also occur in both diseases. In pemphigus vegetans the lymphatic glands are involved as in syphilis. The condylomata of syphilis rarely spread beyond the region adjacent to mucous outlets as does the eruption of pemphigus.

Scabies of infants and children, which sometimes is accompanied by bullae, has a parasite which will determine the nature of the disease.

The Technic of Gall Bladder and Duct Operation.

Mixter (Annals of Surgery) believes that surgeons should not wear rubber gloves in operations upon the biliary apparatus, because so much depends upon the sense of touch. He incises through the outer part of the rectus parallel to its fibers, carrying the cut through the muscle transversely should more room be needed. In most cases it is impossible to determine beforehand just what operation may be necessary. All adhesions should be thoroughly seperated and the zone of interference surrounded with gauze. Stones in the gall bladder are easily detected: small stones in the common and even in the cystic

duct, and still more often in the hepatic duct, may easily escape the careless or hasty operator. The best method of exploration consists in passing the forefinger of the left hand through the foramen of Winslow, thus palpating the duct, artery and vein between the finger and thumb. If the gall bladder is to be opened, it is first secured by passing 2 ligatures through the walls and then aspirating its contents. The bladder is next incised between the 2 ligatures and the gall stones or pus removed by scoop, curette, forceps, or syringe. Drainage should be employed in all cases, a glass tube with a flaring end being tied into the bladder with a heavy silk ligature; a rubber tube is attached to the end of the glass tube outside the body, and the bile or pus is carried through the unsoiled dressing into the bottle hung below the bed. Cholecystectomy is performed by dividing the peritoneum between the liver and gall bladder and isolating the bladder by blunt dissection until the cystic duct is reached, which is tied and severed beyond the ligature. In the ordinary case Mayo's method of dissecting out the mucous membrane possesses no advantages over total extirpation. Common duct operations are among the most difficult and dangerous of all surgical procedures. The structures are deep, of great importance, and easily wounded. Stones here situated may be removed either through the enlarged cystic duct, the incised common duct, the incised duodenum, or by crushing, a most unsatisfactory procedure. Mixter favors drainage rather than suture when the common duct has been opened.

Racemose Sarcoma of Cervix Uteri.

Bache McE. Emmet (Amer. Jour. Obstet., March, 1902) reports a case of the very malignant grape-like sarcoma of the cervix. Spiegelberg first detected this disease in a girl aged 17, it recurred several times and after removal of the uterus proved fatal. Pernice later on discovered that this kind of tumour is made up of embryonic striated muscle-cells. Bache Emmet's case was 19 years old, menstruation was not established till she had reached her 17th year. Pain in left ovarian region had set in two months before examination and there was profuse fetid discharge. Pieces of polypus-like structure kept coming away. On inspection, the vulva was found distended and the vagina packed with the growth. Even under anæsthesia it was hard to define its attachments. It was at length found to spring from the posterior lip of the cervix and a wedge-shaped piece of tissue was cut out, including the attachment of the tumour. Seven months later the growth filled the vagina once more, and high amputation of the cervix was performed. It was then believed that the growth was a simple fibrous polypus as it appeared to be when examined after the first operation. Four months later the discharge again began to appear, followed by pain and profuse bleeding. Janurin had the patient under his care when the disease was advanced, death occurred just five months after the amputation of the cervix and therefore one year after the first surgical proceeding for the patient's relief. The tissue of the tumour examined when the cervix was removed seemed chiefly spindle cells.

Treatment of Prolapse of the Rectum.

Halstead, (Medical Sentinel) summarizes: All cases of prolapse of the mucous membrane alone can best be treated by resection of the protuding mucous membrane and suture of the cut end of the skin of the anus, as in Whitehead's operation for hemorrhoids. In mild cases clamping and cauterizing linear folds of the prolapse is sufficient to effect a cure. In recent reducible prolapse of all coats of the rectum, removal of the cause, if possible, with massage, gymnastics and appropriate internal medication, to improve the patient's general condition should be first tried. If these fail, amputation or intra-abdominal suspension are indicated. In young children, operative treatment of prolapse is seldom required. The removal of the cause, which can usually be accomplished, with rest in horizontal position, tonics and massage, will, in the great majority of cases, cure the patient. Among the most frequent pathologic conditions which bear a direct causal relation to prolapse in children are: Intestinal catarrh, rachitis, phimosis and stone in the bladder. In old irreducible or in recent strangulated cases, the only treatment is amputation by the method of Mikulicz. In old irreducible prolapse, or in recent cases where a fair trial of palliative remedies has been given, we have the choice of two methods—amputation or intra-abdominal fixation. At the present time no authoritative statement can be made as to the value of colopexy. It possesses the following advantages: It is not dangerous; it is easily performed, and, when it is not successful, it does not leave the patient in any worse condition than before. Inguinal colostomy should never be performed except when some special indications exists. e.g., when prolapse is associated with colitis which does not yield to treatment when stricture or malignant diseases are present. Simple catarrhal inflammation of the prolapsed rectum does

not justify opening the colon. Rectopexy, if employed, should be used only in the lesser degress of prolapse of the rectum. In invagination of the rectum and colon it is of no value. In any case its disadvantages and dangers outweigh its good points.

Treatment of Corns.

Freeland (Edin. Med. Jour.) states that in dealing with corns palliative measures have the common defect that they leave the stratum mucosum—the living, growing layer of the corn—untouched, and that any method of treatment to be curative must ensure the removal of the entire corn, together with any underlying bursa. The author has for sometime past practised the full and complete excision of corns, and reports very favorably of the results of such treatment. The skin around the corn having been rendered insensitive by ethyl chlorid, and a 5 per cent. solution of eucaine injected into the subcutaneous parts, two hemi-elliptical incisions meeting at their extremities are made through the skin around the circumference of the growth, care being taken that they penetrate well into the subcutaneous tissue. The corn is then dissected out, and the edges of the wound are brought together by one or two fine sutures. It is stated that the chief advantages to be derived from the complete excision of corns are that as a method of treatment it is safe, speedy, and painless, while the results with regard to cure are permanent.

A Contribution to the Study of the Presence and Formation of Agglutinins in the Blood.

Ruffer and Crendiroponlo (British Medical Journal, April 5. 1902) make the follwing conclusions:

1. The culture of a microbe freed from that microbe by filtration, dialysis, or centrifugalization has a distinct though feeble agglutinating effect on that particular microbe. The age of the culture and the constitution of the medium are important factors in determining the quantity of agglutinins present in such cultures. 2. The red blood-corpuscles of non-immunized and immunized animals contain no trace of agglutinins. 3. On the other hand, the polynuclear leucocytes of non-immunized animals always possess an agglutinating power greater than, or more rarely equal to, that of the serum. They may therefore be rightly considered as the producers, or at any rate the carriers, of the agglutinins. 4. In immunized animals the specific agglutinins appear in the polynuclear lucocytes and are therefore probably formed in them. The quantity of agglutinins begin to increare thirty to forty-eight hours after the injection and goes on increasing up to the tenth day or thereabouts. They then pass into the serum, the agglutinating power of which increases correspondingly. 5. The formation of specifie agglutinins in polynuclear leucocytes and in the serum is preceded and accompanied during the first three or four days after the inoculation of a given microbe by an increase of agglutinins for other microbes. The latter increase is of short duration and stops suddenly, wheras the increase of specific agglutinins perssits for a much longer time.

Sarcoma of the Vagina.

Williams (Jour. of Obst. and Gyn. Brit. Empire, April, 1902) discribes two cases of sarcoma of this region out of a series of 2,648 cases of tumors in women, which would show that the condition is one of comparative rarity. A special feature of the malady in the locality is the large number of cases which originate in infancy, many of them being congenital. It is also met with in adults, but less frequently. Gatti tabulated 27 primary sarcomata of the vagina, 17 of which were infants. These tumors often contain various unusual structures, to wit, striped muscle elements, islets of epithelium, leiomatous tissue, and telangiectatic blood-vessels, and they are relatively often congenital. Growths of this kind are commonest in early infancy, very few being met with after the fifth year. Although the disease is first noticed at birth in only a comparatively small proportion of the total cases, it seems probable that most of the early-life vaginal sarcomata are of congenital origin. The only operative treatment of any avail is total extirpation of the vagina, together with uterus and adnexa, by abdominal section. Several instances of congenital and early-life polypoid formations in vagina have been met with, and these are often erroneously referred to as examples of congenital "myoma." The adult type presents the same general features as in other hollow organs, such as the uterus. Mucosal and partial varieties may be recognized, according to seat of origin of the primary tumor. The fomer is much the rarer. It presents a mass of soft, bossed-out growths projecting from the infiltrated mucosa; or a solitary circumscibed tumor, which may be pedunculated or sessile. In the practical variety a well defined, firm tumor, varying in size from a walnut to an apple, is usually met with; but exceptionally the disease presents a dense, nodular infiltration. Mucosa sarcomata are generally soft and vascular, small, round and spindle cells predominating in their structure, which often comprises considerable myxo-

matous areas. Severe hemorrhages are common with this type of the disease. The partial tumors are generally mixed celled fibrosarcomata, in which spindle cells predominate. It seems probable that some sarcomata of this kind may originate from vaginal "fibroids." The great majority of these sarcomata in adults originate from the lower part of the vagina, not far from the introitus. Quite as many originate anteriorly as posteriorly. The disease seldom spreads to the uterus; but the pelvic and inguinal lymph-glands may be involved. Recurrence is generally rapid after local ablation; hence early radical removal of the whole diseased area is the treatment indicated. When the disease is limited to the lower part of the vagina, vaginal extirpation by transverse perineotomy may suffice (Olshausen). Sarcomatous disease may be secondary to disease elsewhere, e.g., uterus, vulva, etc. Mucosal uterine sarcomata and deciduoma malignum (synctioma) are especially prone to disseminate in the vagina.

The Treatment of Enlarged Prostate.

Wallace (The London Lancet) states that a patient might suffer from all the symptoms of prostatic hypertrophy and yet the gland might not be enlarged. A consideration of symptoms alone could not determine whether the prostate was enlarged. Enlargement of the gland detected by rectal examination did not of necessity imply mechanical obstruction; and, on the other hand, a small prostate might possess an obstructing intra-vesical enlargement. These facts afford a plea for supra-pubic cystotomy. Whatever was the origin of the malady, it was often due to the formation of fibro-adenomatous or fibro myomatous tumors in the gland. Three varieties of enlargement might be recognized: (1) vascular, (2) fibrotic, and (3) fibro-adenomatous or fibro-myomatous. Any one of these might produce the spmptoms of "chronic incomplete retention." Four methods of treatment were at present in use —(1) catheterism, (2) cystotomy, (3) castration or vasectomy, and (4) prostatectomy. He thinks catheterism should be used if possible only for these cases where atony of the bladder has not been reached. The mortality of castration was as high as that of prostatectomy, if all cases were considered. The favorable cases for supra-pubic cystotomy were those in which there were fibro-adenomatous tumors present. He did not believe that all prostates were suitable for even partial removal, and he believed that complete removal of the prostate without opening the urethra was an anatomical impossibility. The writer considered that supra-pubic cystotomy *per se* was not dangerous.

Remarks on the Surgical Treatment of Arterio-Venous Aneurysm.

Sir F. Treves (British Medical Journal, May 10, 1902): Arterio-venous aneurysms are of comparatively rare occurrence and of recent years their rarity has become more marked. But the introduction of the bullet of small calibre into warfare has once more made such aneurysms as familiar as they were in the past, and the war in South Africa has furnished numerous examples. The prognosis is more favorable in the varicose aneurysm than it is in the aneurysmal varix, but in neither variety can the outlook be said to be other than unfavorable. Spontaneous cure in these forms of so-called aneurysm does not appear to occur. The mortality from arterio-venous aneurysms is not nearly so high as is that depending upon those where the artery is alone concerned. Gangrene is quite rare in the arterio-venous form, and rupture is comparatively uncommon; but they lead to great functional trouble and to considerable and increasing local disturbances. This is especially seen where the lower limb is concerned. The muscles waste, the limb remains swollen and painful; it becomes rigid and fixed in a vicious position. Ulcers form, and a condition of solid œdema is not unusual. In some cases the condition is incurable, but, in the majority, operation will bring about recovery. The only operative measure that is to be commended in these cases is ligature of the vessel or vessels at the wounded spot. The ideal procedure is that in which both the affected artery and vein are ligated above and below the point of the abdominal communication, but this cannot always be done.

The four cases of arterio-venous aneurysm described in this paper were all due to bullet wounds. In all, the missile penetrated the part and escaped without injuring the bone, the resultant wound healing by first intention. In the first case, the superficial femoral vessels were involved; in the second, the lesion concerned the popliteal artery at its point of bifurcation; in the third, the bifurcation of the common femoral was the part injured; and in the fourth, a branch of the external carotid artery had been damaged. In all the cases operation brought about a cure.

The Treatment of the Alcoholic Cirrhosis of the Liver.

Converse (Medical News, Feb. 8, 1902) says that when ascites develops, it is all-important to differentiate between the atro-

phic and the hypertrophic forms of alcoholic cirrhosis. In the atrophic variety there is menace at once from the circulatory obstruction and from the glandular destruction. Hale White points out that the average duration of life after the appearance of ascites is eight weeks. Nevertheless, the treatment should be pursued on the same lines as previously stated, being supplemented by paracentesis and the judicious use of purgatives and diuretics, for the average does not speak for the individual case. In a recent thesis Willemin mentions sixteen cases of atrophic cirrhosis that were improved for periods varying from several months to several years.

Simply to mention the fact, Spillman has tried hepatic opotherapy in five cases of atrophic cirrhosis wih encouraging results, for the treatment caused an increase in the amount of urine with parallel increase in urea, phosphoric acid, and an absence of albumin and urobilin. The same treatment had no influence on two cases of Hanot's biliary hypertrophic cirrhosis.

The general treatment is again the same in hypertrophic cirrhosis after the development of ascites. Its success, as H. Campbell Thomson indicates, will depend largely on the nature of the ascites. If the accumulation of fluid is due to the mechanical obstruction in the portal system, it indicates an advanced stage of cirrhosis, and frequent tappings will probably only precipitate the end. Such a fluid is pale, non-fibrinous, contains but little albumin and but few cells, and leaves a solid residue of about two per cent.

If the ascites be due mostly to the coexistence of a perihepatitis and chronic peritonitis, complete rest, together with the milk diet and removal of the fluid, may do much for the patient. This ascitic fluid is fibrinous, albuminous, rich in blood-cells, and contains a residue of about four per cent.

Our knowledge of the intimate causation of ascites is very meague, and such divisions are apt to be too schematic, for the same irritating sclerogenous cause is at work both on the portal system and on the finer vessels of the peritoneum. However this may be, over two-thirds of the reported cases of relative cure of cirrhosis with ascites are of the hypertrophic variety. Many of them read like the following case mentioned by Chuffard in an article on the "Clinical Forms of Cirrhosis," read at the Congress of Moscow:

"The patient, a chronic alcoholic of many years' standing, entered the hospital in January with a well-marked hypertrophic cirrhosis and considerable ascites. From January to May he was tapped five times, 54 liters of fluid being removed. His general condition was bad, with marked emaciation. At the end of May the ascites ceased and did not reappear. The patient soon returned to ordinary diet, gained 13 kilos in weight, and became quite as strong and able as before his illness. For over a year after this and up to the time of writing the patient had remained quite well, although some alimentary glycosuria showed that the liver had not recovered its functional integrity."

Proper Footwear.

Sampson (American Medicine, Jan. 18, 1902) says that footwear should have the following features:

1. Most important of all, the angle of lateral deflection of the shoe should be the same as that of the foot in its adducted position.

2. A straight inner edge, or, if hallux valgus exists, an inner edge a little straighter than the inner edge of the foot, thereby better supporting the long arch, and preventing pronation.

3. The front of the shoe of the same depth along the inner edge as the thickness of the foot at that place, thus permitting the thickest portion of the front of the foot, the big toe, and inner side to assume their proper positions.

4. The shoe convex, not concave, along the outer border of the shank at the mediotarsal articulation. If convex we have pressure at this point, interferring with adduction.

5. The forward part of the shoe, as wide as the weight-bearing portion of the foot at that point, and room for the individual toes to rest on the sole.

6. The posterior portion of the shoe grasping the heel on the foot firmly and well supported. The stiffening should not extend beyond the mediotarsal joint.

7. No spring—i. e., dorsal flexion of the front of the shoe—which interferes with walking and lessens or destroys the transverse arch.

8. The distance from points in the shoe corresponding to the heel and distal end of the first metatarsal bone, the same as in the foot. If the distance in the shoe is longer adduction is interferred with.

9. The shank of the sole convex along the outer border, thus better supporting the outer arch of the foot; it should also be higher on the inner edge and not so wide but that the upper of the shoe can snugly fit the instep.

10. The sole of the front of the shoe flat from side to side.

11. The lower and broader the heel the better.

12. A steel spring in the shank of the shoe helps maintain the shape of the shoe and that of the foot.

13. A little "Scotch" or lateral extension of the sole makes the base of the support wider, renders the parallel gait easier, and if broader along the inner side than the outer it hinders pronation.

14. The bottom of the last or the inner sole pattern must include the area covered by the weight-bearing portion of the foot.

He is in favor, and has actually worn with benefit, a device with a toe-post. It gives a great sense of security and strength, and is comfortable. The weakened foot which can be passively adducted—with the toe-post and the aid of a proper shoe—can be relieved from its previous symptoms, for it holds the foot in the adducted position, thus naturally supporting the long arch, and prevents the rolling over inward, and overcomes hallux valgus.

There are other methods of treating the pronated foot, as massage forcible adduction of the foot, and gymnastics. In extreme cases a flat-foot brace, if it can be worn, is of great service. Symptoms should not simply be relieved; the treatment should be progressive, and when new shoes are necessary, see if the foot will not stand at little more adduction, and alter the lasts accordingly.

To make a flat-foot brace, first make plaster casts of the feet in the adducted position. To do this have the patient sit in a chair with the leg of the foot from which the cast is to be taken resting on the knee of the other leg. Having poured enough plaster on a piece of paper on another chair near enough for the foot to rest on, let the foot sink into the plaster with the outer side of the foot down and the long axis of the foot horrizontal. As it sinks adduct the foot by lifting up the big toe and hold it adducted until the plaster has hardened. Rub some vaseline over the edges of the plaster and a little over the foot and cover the rest of the foot with plaster. When the plaster has hardened separate the two halves, revaselin and tie together, and this will form the mold for the cast. After making the cast, mark the mediotarsal joint and the tuberosity of the fifth metatarsal bone. Outline the brace. The cast may need a little trimming; the arch may be increased a little. From these casts the braces are made according to the outline, using No. 20 or 22 sheet steel. These braces assume their proper positions in the proper shoe and do what is claimed for them. A toe-post also helps out the flat-foot brace by overcoming the hallux valgus and maintaining the adducted position.

Rupture of the Spinal Ligaments.

Painter and Osgood (Boston Medical and Surgical Journal, Jan. 2, 1902) reports four cases of injury to the spine in which there was kyphosis without tuberculosis or other disease of the vertebræ; in which there were symptoms of pressure upon the cord, which pressure symptoms were relieved and the patients made entirely well, functionally, in the course of a few months after treatment with plaster or leather jackets was begun.

An analysis of the eighteen known cases of such an affection, from the pathological point of view where this has been possible, and from the clinical and anatomical point of view in other cases, would seem to justify the following conclusions:

Spinal ligaments, during life, may be ruptured without fracture or dislocation.

Nerve pressure symptoms may occur from a simple flexion of the vertebral column.

Recovery in these cases requires prolonged rest in a position which favors the repair of ligaments. The effects of treatment speak more for the ligamentous rupture than for luxation or fracture.

The force which commonly produced the injuries (when stated) was one which *a priori* would be most likely to produce ligamentous rupture.

The cases from which the above conclusions were derived are classified as injurious to the spine accompanied by ruptured ligaments. This is not intended to include either luxations or fractures, though there have been two or three exceptions made.

Herpes Zoster.

Van Harlingen (American Journal of the Medical Science, January, 1902) states that from clinical and histological investigation (a) that under the term "herpes zoster" is to be understood a specific infectious and probably contagious exanthem. As regards its pathology, since Barensprung in 1861 developed the idea of its nervous origin, and attributed it to irritation of the spinal ganglia (posterior root) or of the Gasserian ganglion, subsequent authors have held that the trophic condition of the related cutaneous areas became weakened or altered, and a condition of local vulnerability of the skin was thus set up, which under the influence of rubbing, contact, and microbes might develop the characteristic eruption. Barth noted that visceral disease may be followed by herpes in certain related cutaneous areas, an observation subsequently confirmed by Pitres and Vaillard, Potain, Head, and others. (b) The *materies morbi* which has a selective action on the posterior spinal root ganglia (and the Gasserian ganglion) is as yet of unknown nature. He shows

from minute clinical inquiries that zoster is characterized by an onset with feelings of lassitude, general malaise, chills, febrile temperature, and digestive disturbances. (c) Following the above symptoms, in most cases neuralgic pains develop along the affected nerves and the lymphatic glands get enlarged. Some days afterwards the characteristic exanthem appears, the neuralgic pains now usually disappearing. (d) Zosteroid eruptions are not infrequently observed in cases of poisoning by coal gas, from arsenic, from shock and injury of nerves, and probably also in hysteria. These, however, are to be distinguished from true herpes zoster. The origin of the disease has not yet been clearly traced, but outbreaks may occur in epidemic form.

Beer and Cancer.

Jonathan Hutchinson (The Polyclinic, May, 1902) suggests that the large increase in the prevalence of cancer which has taken place during recent years may be due to the fact that modern processes of manufacture have introduced arsenic in yearly increasing quantity into various largely-used articles of diet. As an illustration of the increasing and hitherto unsuspected presence of arsenic in food he takes the case of beer. The revelations just made before the Royal Commission as to the almost inevitable presence of arsenic in all beer which is made from malt dried over coke, make it seem more than probable that for the last few centuries during which coal and coke have been gradually superseding wood for the drying of malt, the community have been habitually consuming arsenical salts. Now it is precisely during these years that cancer is supposed to have been increasing. The cases lately observed have simply illustrated the difficulty that exists in diagnosing many cases of chronic arsenical poisoning, and it is probable enough that a considerable number of cases which have in years past been registered as "peripheral neuritis," "vagabond's melasma," "pernicious anæmia," "Addison's disease," "multiple cancer of skin" and other names may in reality have had their origin in the dietetic imbibition of aresenic. "Now if, as seems proved, the continuous use of arsenic in small medicinal doses can predispose the skin to multiple cancer, there seems no reason," he says, "for doubting that it may do the same for the other tissues, and for the mucous membranes and the viscera." Of course, "there must also be constitutional tendency, the appropriate age, and in some cases the local irritation," but if it can be shown, as it apparently can, that modern methods have opened many new channels by which arsenic may obtain access to our bodies, and if the prolonged use of arsenic can so modify nutrition as to lead to the development of cancer, it seems only a legitimate use of the scientific imagination to suggest, that the absorption of arsenic may be at least one cause of the modern increase in the prevalence of the disease. His remarks concerning the arsenical nature of the gases derived from the combustion of coal may perhaps throw some light upon the causation of "chimney-sweep's cancer." It has always been somewhat of a mystery why the irritation of soot should be so peculiarly provocative of the cancer process. But if soot contains arsenic, and arsenic causes cancer, all ought to be plain sailing.

Removal of Wandering Spleen in Female Pelvis.

Peterson (American Journal Obstetrics) March, 1902) operated on an extremely corpulent married woman, aged 39, who weighed nearly 300 lbs. When 19 years old she had a fall and suffered from abdominal pain ever since, often in severe attacks, which never bore any relation to the menstrual period. A mass was felt reaching from between the umbilicus to the pubes down into the pelvis, and it lay more to the right than the left; the uterus was retroverted. After the curette had been applied to the uterine cavity, when the mass could be felt clearly in the pelvis, an incision was made from the umbilicus to the pubes. A tumor was found lying in the pelvic inlet, its lower end adherent to the vesico-parietal peritoneum, and its lower surface resting on the retroverted uterus. The pedicle was the splenic omentum, so elongated as to save the vessels from tension. It was secured by a catgut chain suture and dropped. A rubber drain was inserted the whole length of the incision after the fascia had been united by a catgut suture. The enormously fat subcutaneous tissue was brought together by interrupted silkworm-gut sutures. When the pedicle was being tied the pulse rose to 160, and then gradually fell to 95. The spleen weighed about 1 lb.; it was nearly 8 in. long and 3½ inches wide. It showed chronic congestion, with slight oedema and degeneration of some of its follicles. There was suppuration along the drainage track in the abdominal incision, otherwise convalescence was uninterrupted.

The Diagnosis of Scarlet Fever.

J. Marshall Day (Dublin Journal of Medical Science, March, 1902) says that the chief symptoms of scarlatina are vomiting, sore throat, fever, rapid pulse, and rash. Concerning these individual symptoms, he lays down the following rules:

1. Actual vomiting, or a distinct feeling of nauseau, is nearly always present. 2. Children so seldom complain of sore throat that unless one follows the golden rule of always looking at the throat when examining a child, this symptom may be overlooked. One may find in severe cases that the patient swallows quite well, but the converse also holds good. In mild cases there is often a peculiar dull yellowish whiteness of the hard palate on the second day. 3. At the commencement, the temperature varies from 100 to 104 deg. It falls the next day, rising again in the evening, but not so high, and following this course, generally becomes normal on the eighth to the tenth day. In mild cases it may become normal on the third day. 4. The pulse rate is more characteristic than the temperature, as even in the mildest cases it is over 120, generally 140 to 160, and we find that even after the temperature becomes normal, the pulse rate remains higher than normal. 5. The rash in scarlatina is never seen on the end of the nose, or around the lips—i. e., in the circumoral zone. It is almost invariably out before the third day. In the very mild cases there exists a fine punctiform rash on the tonsils, the hard and soft palates, and over the surface of the body where the skin is softest, such as the flexure aspect of the arms, the sides of the chest, the lowest part of the abdomen, the upper part of the thighs, and in the axilla. It can also be seen on the backs of the hands, the sides of the fingers, and on the dorsal aspect of the foot. When the elbow is flexed, a browning along the folds of the skin is noted, and a similar condition is observed at Poupart's ligament, and also, but not so frequently, at the backs of the knees. This browning persists after the rash fades, and is present with red puncta on the lower limbs. He adds that we should never attempt to diagnosticate the disease from the character of a rash without seeing the whole of it; never attempt to make a diagnosis by artificial light, and, when in doubt, always act as if the more important disease were present, until its absence be certain.

Rheumatism.

Robinson (Mercks' Archives, April, 1902). In joint rheumatism the following application is excellent:

℞ Menthol, 1 drachm.
Ac. salicylici, 2 drachms.
Methyl salicylatis, 1 drachm.
Alcohol, q. s. ad 1 ounce.

Paint joints briskly with camel's hair brush, cover with absorbing cotton and oiled silk, and bandage snugly, but not tightly.

So efficient has the above combination proved in personal hands that in by far the great majority of cases of acute articular rheumatism it has been possible to dispense with medicines altogether. The salicylic acid and methyl salicylate are rapidly absorbed, and their presence can be demonstrated in the urine. In this way one is enabled to saturate the system with salicylates without disturbing the gastric function. After a few applications the epidermis begins to peel off and the surface becomes tender. When this occurs the application should be stopped for a day or two and an emollient ointment should take its place.

The menthol-salicylate-alcohol application is useful in acute rheumatism only. In the sub-acute variety its efficiency is very slight, while in chronic rheumatism, it is practically *nil*. In the latter two varieties the best results are obtained from a 33-per-cent. ichthyol ointment or a 20-per-cent. ichthyol-glycerin solution, aided by the persistent and long-continued internal administration of ichthyol and potassium iodide.

Traumatic Encephalitis.

H. P. Frost (American Journal of Insanity) states that violence inflicted upon the skull frequently results in small lesions upon the base of the frontal lobes, at the apices of a parietal or occipital lobes. At these areas destruction of the tissues is shown by hemorrhagic infiltration of the tissue and all stages of encephalitis. From these foci of destruction later appear scars and other defects with cicatricial investment.

The presence of such scars may be taken as an indication of previously sustained trauma. Diminutive cicatrices with numerous areas of hemorrhage may be assumed to be of traumatic origin. They appear as small contractions or depressions.

The extravasated blood may be entirely reabsorbed or reman in the form of pigment deposits, or of colored amorphous masses.

Rigidity of the neck and forced positions of the body indicate meningitis and suggest lesions of the base of the brain.

Coma and spasm, followed by death, may appear suddenly in traumatic cases from minute areas of destruction of local cortex.

Symptoms of sudden irritation of the brain and of general mental degeneration may develop after injuries to the head which showed few symptoms at the time.

The brain may be injured by an accident affecting the buttocks or extremities.

Dementia post-traumatic may be distinguished clinically, though often with difficulty, from dementia paralytica.

Universal changes in the blood-vessels occur in such cases of traumatism.

Two Cases of Rare Bromide Eruption.

Dr. Wallhauser (Journal of Cutaneous and Genito-Urinary Diseases) records the following:

Case 1.—Female, aged fifteen, native of Austria, in good health until May, 1895, when she received a slight injury to her right index-finger, from which time her illness dates. She became melancholy; this condition being followed by violent fits of hysteria, for which she received bromide of potash in ten-grain doses every three hours. The eruption, located on both lower extremities, appeared about the third week of treament as small vesical papules, oozing and drying in yellowish-green crusts surrounded by a zone of inflammatory redness. The papules were disseminated and grouped, running together in places to form large patches. The crusts were very characteristic, yellowish-green in color; in thickness varying from one-sixteenth to one-fourth inch, irregularly circular in outline. The surface was traversed by deep sulcated lines, especially marked where patches formed. On removal of the crusts, which were firmly adherent, there presented numerous bleeding points corresponding to the papillæ, which were greatly hypertrophied.

Case 2.—Female, aged thirty-six; has been subject to attacks of epilepsy for several years, for which she has been taking a proprietary medicine. The eruption appeared about one year after beginning this treatment. The lesion, which is extremely painful, is located on the lower extremity below the knee, and involves almost its entire circumference. It presents numerous fungating masses, limited to the border. The central portion of the lesion is pigmented, and composed of numerous smooth, rounded papules, making the site of previously existing fungoid masses. On the outer edge of the border and immediately outlying are numerous superficial vesicular and pustular lesions in various stages of formation, which mark the character of the formation of the patch. They begin as small as pin-point vesicles, generally around the hair follicles, and enlarge to about the size of a split pea or more, becoming purulent as they advance. On rupturing the enlarged papillæ are seen, which continue to enlarge, taking on the character of a granuloma. This process is continued for a period of four to six weeks, when resolution begins as a shrinking of the fungoid masses. The epidermis finally covers the enlarged papillae, forming the papules seen in the center of the patch. In some portions of the lesion these papules have entirely disappeared, leaving the skin smooth and shiny.

The treatment consisted in keeping the lesions bathed in ol. lini. and aq. calcis, equal parts, applied on sheet lint, which aided in the removal of the crusts and relieved pain. Case 1 recovered in seven weeks, Case 2 in ten weeks, after the bromide was discontinued.

On Some Points in the Treatment of Puerperal Eclampsia.

Herman (London Lancet, April 26, 1902) calls attention to some points in the treatment of puerperal eclampsia. He says that in the treatment of eclampsia it has been for many years stated that it is important quickly to empty the uterus. This idea is endorsed by many of the obstetric writers, both old and young. Herman questions the efficacy of this method in many instances. He remarks that, if the patient is recovering, as evidenced by cessation of fits, less depth of coma, and re-establishment of the secretion of urine, it may be safe to give a favorable prognosis and not terminate the labor. But early in the case, when the patient has one, or even a few, fits, and is in coma, with almost suppressed urine, but the temperature is not very high or the pulse very rapid, it is not possible to say whether she will recover or die. In such cases it may become advisable to empty the uterus. He also doubts whether it is true that the fits cease when the uterus is emptied. Of 185 cases, in which the fits began during labor, in only 62 did they cease with delivery. Other statistics go to prove that in a very large percentage of the cases rapid delivery of the fetus does not procure cessation of the fits. Emptying the uterus is not, therefore, a certain means of checking eclamptic seizures; when the uterus is empty the fits often continue; in most cases they get better, in some they get worse. If rapid delivery were the one thing needful in eclampsia, if it were the fact that emptying the uterus at once caused the fits to cease, Cesarean section, whether by the usual method or by the method recommended by Duhrssen, would unquestionably be the proper treatment. No other method is so prompt. Of 19 cases, reported by Doderlein, of patients suffering from eclampsia, who were delivered by Cesarean section, good results were obtained in 12 cases, and in 7 the patients were not benefited.

Fistula in Ano--Its Relation to Phthisis.

Grant (International Medical Magazine, April, 1902) believes that tuberculous fistula of the anus is usually secondary to phthisis. Pulmonary tuberculosis is rarely if ever, secondary to anal fistula before or after operation. The writer says that tu-

berculosis of the anal regions should be dealt with as radically as when it attacks other organs. When the patient's condition permits we should operate on fistulae irrespective of kind, and should not decline operation in persons suffering from chronic phthisis, nor in those who give a family history of tuberculosis.

Patients operated on for tuberculous fistula complicated by phthisis, and patients who are non-tuberculous but suffer from some involvement of the lung, and who rapidly decline and die after the operation, do so from inflammation of the lungs induced by the anesthetic, especially ether. He says that such accidents have not followed operations in his practice where local anesthesia was employed. He says we are justified in discarding the teachings of writers who teach that the cure of a fistula will result in the development of phthisis.

Sudden Death in Aortic Stenosis.

James M. Anders (Medical News, May 10, 1902) says the number of proved cases of this affection is small because of the rarity of the concurrence of all of the characteristic signs. These signs are: A small, slow and somewhat tense pulse; a systolic basic thrill; an enlargement of the left chamber; a harsh and musical systolic murmur over the aortic area, and a feeble aortic second sound. A case reported was that of a woman of forty-four years, who exhibited all of the classic signs. The intensity of the aortic second sound was greatly increased; this was probably due to the dilatation of the aorta above the valves. The fact of the accentuation of the aortic second sound and an abnormal area of dulness about five cm. in its greatest diameter and extending upward and to the right from the base of the heart led to the opinion that dilatation of the aorta existed, with probable involvement of the sinuses of Valsalva. The patient died suddenly during sleep. Autopsy showed the aortic ring and the aortic segments to be the seat of marked atheromatous change; the segments were united, puckered, and contracted, and of calcareous consistence. These changes caused decided narrowing of the orifice, and prevented the cusps from falling back into the sinuses of Valsalva during the systole, and offered obstruction to the blood-stream. Above the aortic segments, and including the sinuses of Valsalva, the aorta was dilated, and the orifices of the branches of the aorta were distinctly atheromatous. The dilated part involved about six cm, of the aorta and showed an aneurysm-like pouching. For some distance above the dilatation the caliber of the aorta was considerably diminished. The mitral leaflets and those on the right heart were normal. The diminished caliber may have been due partly to the slowing of the circulation and lessened volume of the blood entering the aorta, owing to the existence of the constricted aortic orifice.

Suppression of the Urine After Labor.

R. G. McKerron (Jour. of Obstet. and Gyn. of the Brit. Empire, April, 1902) says that when the pathological conditions are brought on by pregnancy delivery usually brings about a normal condition, though in eclamptic cases death may ensue before the functional activity of the kidneys is restored. Complete suppression of urine during pregnancy has not been noted without eclampsia apart from the surgical interference. It has followed ovariotomy during gestation (Bland-Sutton). Literature furnished only three instances of uncomplicated postpartum suppression of urine. He believes, however, that it is more common than this would lead one to suppose, he having had two cases of complete and one of partial anuria in his own experience during the last three years. In offering an explanation of the causation of this condition one is compelled to rely upon clinical records which are necessarily incomplete in respect to the condition of the kidneys which led up to it. The women are generally under thirty, and this fact may exclude Bright's disease. Two of the six patients were primipara; the other four had had evidences of renal inadequacy in their previous puerperal histories. In but one case did the gestation continue to term. In five of the cases the children were stillborn. Altogether the women were fourteen times pregnant, and four times only did pregnancy terminate in the birth of a living child. In four of the women labor was usually rapid, if not precipitate. Slight accidental hemorrhage immediately preceded the onset of labor in two cases, in one of which it was accompanied by excruciating pain. Total suppression of urine existed in most of the cases for several days without any urgent symptoms. The most uniform and striking symptom was vomiting. The urine when present was of rather high specific gravity and contained albumin and blood. Bond holds that the suppression is due to impaction of calculi in both ureters. McCrae believed that the anuria was due to the absorption of decomposing matter in connection with the dead fetus in utero, which, it was thought, had given rise to blood-poisoning, a conclusion to which, he held, the symptoms strongly pointed. The author thinks that the fetal death and the postpartum anuria depend on a common cause and that this cause is to be found in

the character of the labor. Fagg says that shock accompanying rupture of the uterus will produce a temporary anuria. If this be so, it is reasonable to suppose that the intense pains which occur in precipitate labor may produce a great deal of shock, which may be the sole factor in the production of the postpartum anuria. Thus from analysis of the clinical condition present, the following would seem to be the most important factors in the production of the condition: 1. A pathological condition in the kidneys—nephritis. 2. A neurotic temperament; the influence of this is seen in hysterical suppression. 3. The shock incident to an undue rapidity of labor, or arising from excessive pain. These seem in all cases to have been the inciting cause.

The Result of Operation in Sixty Cases of Malignant Disease of the Breast.

Marmaduke Shield (The London Lancet, March 8, 1902) comes to the following conclusions: 1. That the risk of removing cancer of the mammæ by extensive operation is small, and should not amount to more than 1 or 2 per cent. Sepsis is preventable, and when it occurs it is a blameworthy error on the part of the surgeon; 2. That early and free removal gives prospect of years of freedom, and in a good percentage of cases, of good health and enjoyment of life; 3. That the cases which do badly are (*a*) soft, rapidly-growing cancer in young and vascular women, and (*b*) cases of long continuance before operations where the skin and cervical glands are widely infected; 4. That in certain cases visceral cancers and cancers in the liver coexist with or rapidly follow operation, and the explanation of these is uncertain; 5. That the practice of early exploration by incision of small nodules and indurations in the breast is of the first importance, and should be strongly urged upon the profession generally, especially upon those in general practice who so often see these cases in their early beginnings and upon whom the great responsibility of prompt diagnosis falls; 6. No one should undertake an operation for mammary cancer unless he is capable, and has had sufficient operative experience, to remove thoroughly all lymphoid tissues from the axilla, the leaving of infected glands toward the apices of the axillary spaces being a common source of failure in the results of this operation; 7. The prognosis of mammary cancer is still dubious, and sometimes instances arise which falsify ordinary experience. Bad cases have long freedom from return. Early cases show recurrence. But such do not invalidate the rule, operate early, operate extensively.

Tonsillitis, Follicular.

Brown (Medical Record, March 1, 1902) suggests the following points regarding tonsillitis:

1. That follicular tonsillitis is not caused by a single microbe, but that many well-known micro-organisms are capable of causing it.

2. That the symptoms of tonsillitis are partly caused by an exaggeration of its function.

3. That under the stimulus of infection the lyph-corpuscles in the adenoid structure of the tonsil produce an antitoxin that is antagonistic to invading germs.

4. That the characteristic symptom is an exudate having no texture and non-adherent.

5. That the presence of the Klebs-Loeffler bacillus is not positive evidence that the disease is not a simple follicular tonsillitis.

6. Last, that there seems to be some relation between folliclar tosillitis and the infectious diseases which is not yet properly understood; that whatever the function of the tonsil, it seems in disease to endeavor by its activity to assist Nature in eliminating infection.

Chloroform Anaesthesia, Death During.

Embley (British Medical Journal, April 12, 1902) reports one hundred and twenty experiments to ascertain the part played by vagus inhibition in chloroform poisoning. In fifty-four cases vagus inhibition embarrassed the circulation to a more or less dangerous extent, and in thirty-three experiments was the immediate cause of death. To sum up:

1. A heart which has been poisoned by inhalations of chloroform of strength of 2 per cent. and upwards can always be permanently inhibited by stimulation of the vagi with the faradic current when the blood-pressure has fallen to about 40 to 50 millimeters of mercury pressure.

2. Chloroform raises the excitability of the vagus mechanism, particularly in the early part of the adminstration.

3. The increased excitability of the vagus mechanism is due to the action of chloroform on the vagus centres, and the inhibitory action is more intense from being exercised upon a heart whose spontaneous excitability is diminished by the action of the chloroform upon it.

4. Chloroform administered to morphinized dogs in air containing not more than 1.5 per cent. of the vapor, after a period of mild excitation, slowly depresses vagus excitability. The excitability may again be raised with more or less readiness according to the duration of the administration and the endurance of the vagi by increas-

ing the percentage strength of the chloroform or by asphyxia.

5. Vagus inhibition is, in dogs, the great factor in the causation of sudden death from chloroform.

6. Dangerous inhibition is liable to occur whenever the strength of chloroform in the air inhaled rises above 2 per cent.

Thoracic Phthisis.

Roberts (Lancet, April 19, 1902) submits the following general propositions in regard to thoracic phthisis: "1. The natural tendency of phthisical mischief involving the lung, especially if definitely tubercular, is to be progressive, and even an early and limited lesion gives cause for anxiety with regard to the future. 2. There is no foundation whatever for the supposed 'three stages' of the complaint from a clinical point of view, corresponding to the pathologic states of consolidation, softening and cavity. This is a popular error which the profession should do its utmost to suppress. 3. In not a few cases the progress of thoracic phthisis is very insidious, without any prominent local symptoms; this may happen even in acute and rapid cases, as well as in those of a chronic type. 4. It is very remarkable how, in certain acute cases of phthisis, if not too advanced, arrest of the disease takes place, sometimes ending in a practical cure, especially if the patient can be placed under favorable conditions. In other instances, after rapid progress, it settled down into a chronic and limited form of phthisis. Acute pleuritic cases of definitely tuberculous nature are, as a rule, very unsatisfactory in their progress, but some striking exceptions are met with. 5. While recognizing the tendency of phthisical lesions to advance progressively, we must always be fully alive to the wonderful efforts of nature to oppose and withstand them, to check their progress and to repair the damage which they have caused, even when the morbid changes are definite, extensive and of a destructive nature. The more chronic the case, the more likely are these results to happen. At the same time unaffected portions of pulmonary tissue may become developed and utilized for respiratory purposes, a development which it should be our business to encourage and to help. 6. It is extraordinary sometimes to note the combinations of chronic conditions affecting the chest with which patients may not only live but even get on fairly comfortably, especially when their circumstances and surroundings are satisfactory and they are prepared to exercise moderate care. As to cavities which are generally regarded with such terror, there are thousands upon thousands of persons who go about with these lesions, many of whom do excellent work, public as well as private, and all must be familiar with such cases. 7. Phthisical cases are always liable to variations in their progress, improvement or even apparent arrest of the disease taking place, followed by exacerbation and further activity. A considerable number of cases of winter cough are really of a phthisical nature. However quiescent a case may be, or even after a practical cure, the mischief is liable to start afresh, though it may be after a long interval; this is not an uncommon experience after a supposed cure by the open-air treatment. Accidental complications, sudden or acute, not uncommonly interrupt the course of events, being either serious for the time, but ultimately recovered from, or leading to an unexpected fatal termination very speedily or within a short period. 8. We must always be prepared for striking changes in the clinical aspect and phenomena of cases of thoracic phthisis during their progress, not only local, but also in relation to the various remote complications which may supervene. Hence a case often entirely alters in its features before the end comes. The final scene varies considerably in its characters, and may be very distressing; but in many instances the end is calm and peaceful, while the patient is, as is well known, generally buoyed up with hope even to the last. Sudden syncope is sometimes the immediate cause of death. Acute mania may supervene toward the close of life in chronic phthisis. 9. Another important point to be borne in mind is that sometimes a phthisical patient lingers on indefinitely when apparently almost moribund, especially when kept alive by devoted nursing and care. And further, an individual in advanced consumption who appears to be rapidly approaching the end occasionally rallies and picks up in a wonderful way, living for a long time afterwards, and, it may be, improving considerably. I remember several cases of this kind brought to the Brompton Hospital, their friends thinking that they had relieved themselves of all further responsibility, but the patients were afterward returned to their hands vastly improved, sometimes much to their disappointment." Dr. Roberts suggests that we should be very cautious in the prognosis of these cases, especially as regards the future of the disease, as affecting the communities as well as individual cases. The "optimistic platitudes" now widely and dogmatically expressed are, in his opinion, doing serious mischief in various ways. Nevertheless, we should recognize the practical findings which have been made in the

treatment, and the real diminution in the prevalence and mortality of the disease. He would warn the practitioner against anything like a definite opinion as to the duration of the disease.

Total Obstructive Urinary Suppression.

W. Mitchell Stevens (Brit. Med. Jour., March 22, 1902) points out the following facts: (a) There was a history of prolonged and well-marked glycosuria. (b) A very short history of symptoms leading to renal calculus. Three months before death there was absolutely nothing to suggest kidney lesion of any kind. (c) The onset of total suppression of urine without symptoms of renal colic. (d) The suppression was absolute. Not a drop of urine was passed from April 5th until the patient's death on April 12th. In most recorded cases of obstructive suppression small quantities of pale urine have been passed; indeed, it was pointed out by the late Sir William Roberts that this is a condition characteristic of "obstruction." (e) The absence of uremia; seven days passed without the elimination by the kidneys of a single grain of urea, yet there was not a single symptom pointing to uremia. (f) The duration of life. In this case it was seven days. Roberts states that it is a rule from nine to eleven days. It is possible that had this patient lived longer, symptoms of uremia might have developed, but they are not the general rule in such cases. The autopsy showed dilatation of the pelvis of the right kidney with atrophy of the organ, proving that at an early period it had ceased, through blocking of the ureter, to perform its function. The left organ had undergone the usual compensatory enlargement and had up to the time of the blocking of its ureter done all necessary work. The stone which blocked the ureter, while small, was large compared with one reported by Sir W. Roberts, which weighed but gr. 1 1-3. That so small a concretion should be the direct cause of death is remarkable. The pelvis here was not in the least dilated—a fact which shows that more time than seven days is necessary for its accomplishment and that, inasmuch as but a few drops of pale urine were found, the pressure necessary to stop the secretion is very slight. Self-evidently, the treatment of this condition is operative as soon as a diagnosis is established, albeit there are some cases of spontaneous recovery reported, in one of which were passed twelve pints of urine within a very short time after the stone found its way to the bladder. It must not be forgotten that ninety per cent. of all cases of obstruction are due to stone and that lodgment of a calculus does not by any means always cause pain. It is evident from a study of this and of cases parallel to it that uremia in no way depends on an accumulation in the blood and tissues of excretory products which are normally excreted by the urine. There is an important difference in the pathology of the two conditions, called "obstruction" and "non obstruction" suppression. In the first the kidneys are normal; in the second they are abnormal. Does not this suggest that there is a very important function of the kidney quite aside and apart from excreting? When a case of nephritis advances to the stage of suppression the other functions of the kidney are also in obeyance. If a stone plug the ureter of a healthy organ, on the other hand, the excretory function alone is stopped. Thus one can conceive that the kidney has a double function—that of creating an "internal secretion" as well as playing the role with which one is familiar. Is not the organ, like many others, "secretory," as well as "excretory"?

Hemorrhage After Removal of Adenoids.

Louine (Philadelphia Medical Journal, April 12, 1902) reports five cases of hemorrhage following the removal of the nasopharyngeal gland in children from six to fourteen years old. In considering the causes of hemorrhage, he mentions 1, hemophilia and anemia; 2, heart disease, especially hypertrophy of the left ventricle; 3, anomalies in the nasopharynx, especially the so-called vertebra prominens; 4, the anomaly of the posterior inferior border of the septum described by Grunwald under the name of ala septi; 5, anomalies in the distribution of the blody vessels; 6, the employment of cocaine, which acts first as a vasoconstrictor and then as a vasodilator; 7, a remaining piece of the gland which remains attached by the mucous membrane only and acts as a foreign body; 8, menstruation; 9, very sharp instruments; 10, acute catarrhal condition of the upper respiratory passages accompanied by engorgement of the Blood-vessels. As to treatment, the hemorrhage, if not very severe, may be controlled by the usual methods, such as infection of cold or hot water, insufflation of tannin, application of trichloracetic acid, ferropyrine, extract of suprarenal gland, getol, dermatol, etc. He found in ferropyrine an excellent hemostatic in slight hemorrhages, used in a five per cent. solution of gelatin. If no success follows the application of the above methods, tamponade should be resorted to, but only as an ultimum refugium, and with great caution in the case of small children, as in the latter the tampon causes obstruction of deglutition and breathing and may lead to ccm

plications in the ear. As a preventive against subsequent hemorrhage, complete rest for several days after the operation should be insisted upon.

Vaginal Hysterectomy for Carcinoma of the Uterus.

Pryer (Boston Medical and Surgical Journal, April 17, 1902) believes that in removing cancerous growths from the uterus it should be borne in mind 1, that the localities of natural increase or recurrence are parametrium first and vagina second; 2. the surgical rule that no trauma or section should be inflicted upon the involved field during its removal, lest hitherto uninvaded absorbents be opened up for the reception of the cancer elements, and lest severe trauma upon the cancerous growth result in the projections of the cancer elements along the absorbents directly in connection with the cancerous mass; 3, consideration of the general bodily condition of the patient. The first essential requires the parametrium be removed, together with the upper third of the vagina, in all cases of cancer of the body the parametrium only. As no incision should be made through the cancer, these organs must be removed en masse. This can best be done by opening the abdomen, and in young women, who bear the strain of abdominal operation better than the aged, and in whom cancer of the cervix tends to spread more rapidly and recur more promptly, he prefers abdominal hysterectomy. He finds a distinct indication for vaginal hystorectomy in but a limited percentage of cases of cervical cancer, although it may be the operation of choice for cancer of the body except in case of young women in whom the cancer has pus foci or is associated with fibroids.

Tuberculosis and the Organ of Hearing.

K. Nandor (Medical Press, April 9, 1902) says that this disease usually occurs as a middle-ear suppuration. The process is mostly secondary, or it accompanies bone or lung tuberculosis, especially in children. Tuberculous ear discharges form 0.7 per cent. of all ear diseases. The path of infection may be either from the mouth through the Eustachain tube, or through an already present perforation of the tympanum from the external auditory meatus, and finally, via the blood. The demonstration of the presence of the tubercle bacillus is often difficult; in some cases it is indeed impossible. The clinical picture is variable. A most characteristic sign is the absence of a reaction and pain. The discharge is copious, thin, and foul-smelling. The process extends to the petrous bone, to the labyrinth, and ultimately caries of the petrous bone and impairment of the hearing result. It leads to facial paralysis, and to erosion of the blood-vessels. Severe complications, such as meningitis, thrombophlebitis, cerebal and cerebellar abscesses, may follow tuberculous affections. Milder cases are met with, especially in children. The prognosis is always unfavorable. Even when it heals, defects of the tympanum and impairment of hearing remain behind. The deeper the caries of the petrous bone extends, the graver the prognosis; nevertheless, by operation some relief can be afforded. The treatment must be local and general. For such patients good air and good nourishment are advisable in addition to the local treatment. By conservative measures we must provide for the free drainage of the pus so that retention may not occur, and apply antiseptics. The best result, however, is to be obtained by operative measures, when we transform all the middle-ear cavities into one cavity, and remove all carious bone. The operation indicated in every case of middle-ear tuberculosis, in which the lung tuberculosis has not yet made much progress.

Smallpox and Vaccination.

John Caven (Canadian Practitioner, April, 1902) says in deciding between points and glycerinized lymph in practice, the following questions must be asked and answered:

1. Does glycerinized lymph convey cowpox to the vaccinated individual? The experience of such countries as Germany may be pointed to. In England also there is no doubt in the minds of the public vaccinators—men who have had an almost unlimited experience of the use of all kinds of vaccine—that the glycerinized is effective. In Japan smallpox is not regarded with any serious dread, since vaccination has been made general (compulsory): glycerinated lymph is employed.

Two years ago the Provincial Health Board of Ontaria passed a resolution to the effect that glycerinized lymph ought in all cases to be used, and instructing local boards to that effect. The Provincial Board's own inspectors have employed it extensively in Northren Ontaria during the present epidemic of smallpox and are satisfied with the results, Many lumbermen who were vaccinated in 1901 have been exposed to smallpox in the camps since then and protection appears to have been perfect.

The experience of individual physicians in Toronto is almost unanimously in favor of glycerinated lymph. He has been favored with the opinions and statistics of

many in large practices, and has yet to hear a doubt expressed with regard to its efficacy. In the last place nearly all propagators of vaccine use glycerinized lymph as seed for infecting the animals from which their marketed vaccine is to be taken. As a matter of fact the majority of dry points on the market are charged from animals so vaccinated. To argue then—as some do—that dry points are superior to the glycerinized lymph in conveying cawpox is absurd.

2. Does bacteriologic examination demonstrate that there are fewer micro-organisms of all kinds in glycerinized lymph than upon dry points? If the glycerinized lymph be allowed a sufficient length of time to "ripen," it does. From four weeks to two months from the time of mixing pulp and glycerin should be followed to elapse before vaccinating with it.

Rosenau, of the United State Marine Hospital Service, made a series of tests of dry points and tube lymph, buying upon the open market the products of eight different manufacturers. His plates from dry points gave an average of twice as many colonies as the tubes. From none of these did he find pathogenic results upon animals. The writer concluded, however, that some of the tubes must have been issued whilst still green, because so many colonies appeared.

His experience with plate cultures is generally corroborative of that of Rosenau, but Rosenau's average of colonies per plate from glycerinized tubes was very considerably greater. In the tube lymph of one manufacturer only was the number of colonies so great as to make it probable that it had been issued too early. The difference between dry points and tube in the number of colondes developed was so marked that they should not be classed together at all; if relative freedom from bacteria be a proof of superiority, then there is no doubt that properly aged glycerinized lymph is better than that upon dry points.

Treatment of Gout.

A. P. Luff (Practitioner, Mch., 1902) believes that for the gouty diathesis the potassium salts are of distinct benefit and of these the citrate is probably the best. If given in sufficient doses it tends to diminish the acidity of the urine and increases the solvent power of the urine for the uric acid salts. Dr. Luff has experimentally shown that the potassium salts delay and inhibit the conversion of the soluble gelatinous sodium biurate into the comparatively insoluble crystalline biurate. When there are no appreciable uratic deposits in the joints, and there are present a sluggish action of the liver and a gastro-intestinal catarrh, the sodium salts undoubtedly have a decided action. The lithium salts have no better solvent power upon the gouty deposits and possess the disappointing property of being strong cardiac depressants. Now and then a good dose of blue pill followed by Epson salts or by a little calomel combined with euonymin and colocyn it will be found useful. To increase the circulation and improve the nutrition, baths and massage are indicated in the more chronic cases. In swollen joints, the seats of considerable deposits much benfit is derived from massage of each joint for a few minutes, followed by galvanism with the negative pole over the affected area. Radiant heat, and superheated air baths have a more penetrating effect than other forms of heat and sometimes there is a progressive improvement for a long time after cessation of the baths. In gouty neuritis superheated baths followed by the constant current give, perhaps, the best results. In the treatment of gouty eczema attention should be paid to two details especially, the regulation of the bowels and the absolute abstention from alcohol in any form and especially the red wines. In the dry irritative stage the application of a lotion containing liq. plumbi sybacetatis, 3j; liq. carbonis detergens, 3j; and aqua sambuci, ad Oj, is very soothing, especially if followed by a powder such as cimolite powder. In gouty pruritis, carbolic acid washes are useful, and in the chronic form sulphur baths are beneficial. If insomnia be present, examine the pulse and urine, for the tension is frequently high and a brisk purge is frequently more successful than hypnotics. As a preventive to gouty attacks guaiacum resin seems to have a decided effect and can best be given incachets, commencing with doses of five grains three times a day and gradually increasing to ten or twelve grains. It can thus be taken without any discomfort to the patient. Quinic acid is recommended by some. No hard an fast lines as to dietary can be laid down in the treatment of gout. Simplicity of food means facility of digestion, but each individual must be consulted in regard to the things which disagree with him. The amount of fluids ingested is usually found to be much below what it should be, especially in women. As a rule alcohol should not be used at all, but some patients seem to need a little whisky or brandy. Although an excessive consumption of meats, particularly red meats, is a potent factor in producing gout, yet there are a few cases of chronic gout which improve and even recover on an exclusive diet of red meat and water. These are usually the cases of

gouty arthritis which have failed to respond to the ordinary methods. This course of treatment should last from ten to twelve weeks, after which a gradual return to the ordinary diet should be made. In regard to climate a fairly bracing air with a low relative humidity is the most suitable for the gouty person.

What Shall be Done With the Professional Midwife?

Maurice J. Lewis, M. D., (Buffalo Medical Journal, March, 1902) says:

"Figures furnished by the Department of Health of the city of New York show that during the year 1901, 80,735 births were reported, of which number 42,253 were reported by physicians, and 38,482 by midwives. The figures for the preceding years are very much the same as those just quoted.

"Personal investigation, through the medium of prominent physicians in the city of New York, shows an undivided opinion based upon their experience that great evils are wrought to the community by reason of the incapacity and the negligence of these midwives.

"It is a difficult matter to determine just how many cases of disease and deformity are properly chargeable to imcompetency on the part of midwives at the bedside of the lying-in woman and at the birth of the child.

"Suffice it, our hospitals and dispensaries are daily witnesses to the criminality which permit ignorant women to act as medical guardians to the birth of children.

"By reason of the public lack of knowledge of the subject, it has ever devolved on the medical profession to correct sanitary and health abuses, and as heretofore the laity expects the profession of medicine, through its accredited society or societies, to point out the remedy, when the lawmakers may be expected to act. The difficulty up to this time in consummating a correction of this abuse and a mitigation of this suffering has been due to a lack of unanimity on the part of the doctors as to method and manner.

"Those opposed to interference state: 'If you legalize these midwives, you permit uneducated persons to practice a branch of medicine, which practice requires more knowledge than the educated midwife can possess.' The other faction has said: 'Educate these midwives as they are educated in Europe, and there will be a mitigation of existing evils.' The ideal method would, of course, be that which would make it legally necessary for one practicing midwifery to be possessed of the knowledge essential to practice medicine generally. But such a view is, at present, impracticable.

"We know that the asylums for the blind are being crowded with children rendered sightless because of the neglect, criminal or otherwise, of these midwives. We know that dispensaries and hospitals are daily crowded with women who have been maimed and crippled because of the neglect or otherwise of this same class of people. We know that abortions are being daily committed by women advertising themseves as professional midwives. We know that farming out of children is being carried on by many of this same class. Is it not high time that the medical profession of the State of New York should step in and demand an abatement of the conditions enumerated? Unitedly presenting our views to the Legislature it is reasonable to expect that the Legislature would come to the rescue."

Let the profession unite in petitioning the Legislature to pass a law that on and after a given date no persons shall be permitted to practice midwifery (unless previouly registered as having attended at least ten cases of confinement), who is not licensed so to practice after examinations to be conducted on given topics, under rules and regulations formulated by the regents of the University of the State of New York or by the State Board of Health, as you will.

The verbiage of this bill could be simple and still effective. It need not take up more space than a stick in a newspaper column. This caviling as to whose function it is to attend cases of this character, the plaint of the sentimentalist in medicine that the profession is being insulted by recognizing, legally, those who carry on this practice, and all other fancies, should be set aside, and the great thought kept in mind that the public is entitled to a better condition of affairs, and that crime and physical wreck in the name of midwifery should cease.

Medical Representation In Hospital-Management.*

The Physician is not wanting in the qualities that contribute to a successful business-career. The practice of medicine, though having business-aspects, is a learned profession. By reason of his training, attainments, positions with others, the physician is especially fitted for the exercise of executive and administrative ability and of sound business-judgment, but by rea-

*Abstract of a paper by Eshner, presented to the American Academy of Medicine, Philadelphia.

son of his pursuits and his opportunities he is disinclined for engaging in ordinary business-activity. He is, however, especially equipped and qualified for hospital-management. Certain lay boards look upon hospital-management as a matter of pure business and the medical officers as mere subordinates. The correct relation between the hospital-management and the medical staff, however, makes the one co-ordinate with the other, so that the work of each should be supplemental and complemental. Certain matters in hospital-management require the judgment of a medical man for their decision, and this should be secured from members of the medical staff rather than from others. The lay managers should be responsible for all purely business-matters and the medical staff for all purely professional matters. This end can be attained 1, by electing one or more members of the staff to membership in the board; 2, by periodic conferences between the staff and the board; 3, by conferences between a committee of the staff and the board or a committee of the board.

MISCELLANEOUS.

Board of Medical Examiners State of North Carolina.

The following are the questions asked by the members of the Medical Examining Board at the 40th Annual Session, June 1902.

MATERIA MEDICA AND THERAPEUTICS.

By Edward C. Register, M. D., President, Charlotte, N. C.

1. What are the Medical uses of Guaiacol?

2. What is Diphtheria Antitoxin? Give dose and method of administration.

3. What is the action of Aconite on the heart?

4. Give symptoms of Antimony Poisoning.

5. What medicines are incompatible with Calomel?

6. What does a Seidlitz powder contain?

7. Describe the physiological action of Heroin?

8. How would you treat a case of Arsenic Poisoning?

9. How many minims of tr. of opium are equal to one grain of powdered opium? How much paregoric is equal to one grain of powdered opium? What is the equivalent strength of morphia in each?

10. What is the differential diagnosis between Alcoholic narcosis and uremic unconciousness?

Surgery.

By D. T. Tayloe, M. D., Washington, N. C.

1. What are the anatomical varieties of Hemorrhage? What are the clinical varieties of Hemorrhage? What are the general or constitutional treatment of Hemorrhage in cases of collapse or threatened death?

2. Describe the general principals to be adopted in ligating artificial trunks in continuity, whether for injury or disease.

3. What are the indications for Laparotomy in abdominal wounds?

4. Under what circumstances may careful sounding fail to detect Stone? How may Visical Calculi be treated, and what circumstances guide you in the choice of operation?

5. Classify Fractures of the skull. What is the pathology of Fracture?

6. Give the differential diagnosis between Supra-Condyloid fracture of the humerus, and backward luxation of the radius and ulna.

7. Name the dislocations of the hip joint. What Symptoms characterize the backward luxations?

8. Compare briefly the symptoms and lesions of Arthritis and Synovitis?

9. What is Septicæmia? In true Septicæmia how does the blood in general become infected?

10. How do you prepare patients for the administration of anesthetics? How do you administer ether? Under what circumstances is chloroform preferred to ether?

Anatomy.

By Dr. J. Howell Way, Waynesville.

1. With what bones does the longest bone in the body articulate?

2. Describe the inferior radio-ulnar articulations.

3. Describe the right ventricle of the heart.

4. Trace the course of the blood current from the right auricle to the great toe.

5. Locate the valves of the heart in relation to the external surface of the chest wall?

6. Describe the ischio-rectal fossa?

7. Describe the nerve which supplies motion to the muscle of mastication?

8. Given a moderately distended bladder, how far above the symphisis pubis may an incision be made through the abdominal wall without injury to the peritoneum?

9. Outline the course of the radial artery on anterior surface of forearm?

10. Describe the male urethra?

Chemistry.

By T. S. McMullan, M.D., Hertford.

1. When are substances "Isomorphous"? What is a colloid substance?

2. What is Osmose? What substances are most likely to dialyze, and which have no such tendency?

3. What is meant by "chemical Affinity"? What physical forces tend to decompose compound substances?

4. What is chemical "Analysis" and what is chemical "synthesis?" Mention the elements existing in the gaseons state.

5. What is organic chemistry according to modern views, and mention the four chief elements entering into organic compounds.

6. To what chemical group does Glycogen belong? State where it is found, its properties and how acted on by dilute acid.

7 Why are astringent liquids useful in poisoning by vegetable alkaloids? What is an antitoxin?

8. What is a proteid? What is a Peptone? State the characteristic chemical difference between the two.

9. State in a general way the chemical difference between animal and plant life.

10. Describe Trommer's test for sugar in urine. What precaution must be observed and state the chemical reaction if sugar be present.

Any list for sugar may be given instead of one asked.

Obstetrics, Pediatrics and Gynecology.

By Albert Anderson, M. D., Wilson, N. C.

Obstetrics.

1. Describe the management of labor in twin births and mention the main points for consideration.

2. Difference between abortion and premature labor. Indications for the induction of either, and the methods employed.

3. Taxæmia of Pregnancy. Tell what it is and give prophylaxis and treatment

Pediatrics.

1. Adenoid Growths. Give etiology, pathology, symptoms, diagnosis and treatment.

2. Pavor Nocturnus. What is it and from what does it proceed?

3. Meningitis. What produces it? Give its symptoms, prognosis and treatment.

Gynecology.

1. Give the different ways of making a physical examination and the positions of patient.

2. Give details of preparing a patient for an abdominal operation.

3. Acute Gonorrhœal Endometritis. Give cause, symptoms, diagnosis and treatment.

Physiology.

By T. E. Anderson, M. D., Statesville.

1. Describe a complete Nerve; (a) Name different kind of fibers and function of same; (b) Do nerves possess the power of generating force in themselves? Explain.

2. Describe source of Saliva; name ferment and uses; also chief nerve supply; (a) Does increased vascularity increase the flow of Saliva?

3. The Organs of Corti, where found, and supposed function?

4. Define Glycogen, where found its uses and destination?

5 Is Respiration purely a voluntary act? Explain?

6. What effect follows Section or inquiry of the Semilunar Canals?

7. Explain nervous mechanism of deglutition; mention nerves concerned.

8. Give reaction to Pancreatic juice, ferments, and part played in digestion by each.

9. Source of the corpuscles of the human blood; relative number of each, their office; What is Diapedesis?

10. Where and how do the various types of food, when digested, enter the blood?

Practice of Medicine.

By J. C. Walton, M. D., Reidsville. N. C.

1. Causes, symptoms and treatment of Cererbral Embolism and Thrombosis.

2. Causes, symptoms and treatment of Acute Uraemia.

3. Name the conditions both Physiologic and Pathologic in which we find Leucocytosis.

4. In Measles, Chicken Pox, and Scarlet Fever, give period of incubation. Mode of onset, when Rash appears, character of Rash, character of Deszuamation, Complication and Sequelae.

5. Differential Diagnosis between Hysteroid Convulsions and Epilepsy.

6. Differential Diagnosis between Mitral Reguritation and functional and harmless Murmurs.

7. Differential Diagnosis between chronic Gastritis, Gastric Ulcer, and Gastric Carcinoma.

8. Describe the clinical forms of Dysentery and differentiate between them and give briefly the essentials of the treatment.

9. Tabulate chief causes of Ascites, Oedema of the lungs, Cardiac Hypertrophy, Albuminuria, Haemoptysis, Jaundice and Haematemesis.

10. Name the specific Micro-organism of Typhoid Fever, Malaria, Meningitis Croupous Pneumonia, Diphtheria, Gonorrhœa, Cholera, Yellow Fever, Influenza,

Relapsing Fever, Ulcerative Endocardetis, Membranous Croup, Brocho-Pneumonia, and Tuberculosis.

Treatment of Locomotor Ataxia.

Though the progress of the disease may be very prolonged, and may even for a time cease, there is never a cure. It is very doubtful if initial cases *i. e.*, where only one or two characteristic symptoms are present, are ever cured. Probably reported successes were merely cases of syphilis. True tabes is incurable; at present our treatment is purely symptomatic. Anti-syphilitic measures are useless. In inital cases, with a definite syphilitic history, they may be tride. though the author has never seen any improvement. In advanced cases they are harmful, increasing weakness, and often unfavoralby affecting symptoms, such as commencing optic atrophy. No other drugs have any better effect. The most useful measure is, as a rule, complete and prolonged rest in bed, which often hinders the progress of the disease. In any case fatigue and over-exertion should be avoided. The rest cure is especially beneficial for the ataxia. The second great indication is good nursing, and plenty of good rich food which contains very little fat. The third indication is frequent warm baths. The author has seen the greatest benefit fron saline baths of a temperature of 30 deg. to 32 deg C., given twice or thrice a week. The bath should not last longer than fifteen minutes,as a rule. A six weeks' course may be repeated twice or thrice a year. Chills and wettings should be avoided, and warm clothing should be always worn. For individual symptoms, electricty, massage, narcotics, and analgesics are necessary. As regards Frankel's compensatory exercises, Jacobsohn holds that the complicated apparatus is unnecessary. Chalk diagrams are equally useful. many observers hold that if carried out to excess the exercises are harmful. In any case this treatment is only in place where the disease has come to a standstill. When the disease is actively progressing, Frankel's treatment is contraindicated, and instead the patient should be ordered rest and avoidance of fatigue.—*Indian Medical Record.*

Some Recent Literature on the Etiology of Carcinoma.

Aloysius O. J. Kelly calls attention to the fact that has been pointed out by Sailer that Schaudinn, one of the keenest zoologist, has lately stated that he has carefully examined sections of one hundred malignant growths in which the so-called parasites were present, and he is convinced that the growths did not contain any bodies that could be regarded as coccidia or protozoa. The writer is not willing to deny that malignant tumours may be due to the pathogenic activities of lower forms of life; still he believes that the proposition has not yet been proved, and that there are many facts known that speak against the likelihood of its ever being proved, at least with the present methods of investigation. He concludes by quoting Ziegler's opinion: "The formations that have been described as protozoa and blas'omycetes are in reality degenerated nuclei, degenerated nucleolar figures, various products of the cell protolasm, such as mucous, colloid, hyalin, keratohyalin, or cells; for instance, cancer cells that have included leucocytes or the products of their retrograde metamorphose. The supporters of parasitic theory of tumors are in reality decreasing in number, and this phenomenon is testified not only on account of the want of the demonstration of the occurrence of tumor parasites, but also because all the biological characteristics of tumors speak against their parasitic nature." — *University of Pennsylvania Medical Bulletin.*

Damages for the Morphine Habit.

The English medical journals contain reports of a curious lawsu't which has just been on trial in an English court. A nurse brought action against her physician for alleged malpractice in prescribing morphine for her in therapeutic doses, and thereby inducing in her the morphine habit. The doctor was accused of negligence and a desire to get rid of a troublesome patient! It is to the credit of the jury that, having heard the plaintiff's side of the case, they stopped the trial, and expressed the opinion that the action ought never to have been brought.

The case suggests some rather curious reflections. We do not doubt that some physicians are sometimes rather careless in prescribing such drugs as morphine or cocaine; but it would be difficult tc apportion the exact degree of responsibility and the exact amount of damages, if every morphine fiend were to have redress in court from every physician who had ever prescribed a dose of such drugs for him or her. The precedent established by one such case would be rather disquieting to every doctor in active practice. In this English case the fact that the plaintiff was a nurse, and knew well the dangerous effects of the drug which she continued taking of her own accord, should have been enough to satisfy her lawyers that she had no claim either in justice or in law. Such remote consequences are hardly to be appraised at a

money value, or to be ascribed to the fault of a physician who had merely given the drug in therapeutic doses.—*Philadelphia Medical Journal.*

Blood Examination.

Brown reviews the advantage of blood examination, showing what different elements we observe in analysis of the blood, and gives the forms of disease in which the methods have been found of advantage. The diagnosis of typhoid fever has been largely cleared up by the Widal reaction. There are certain forms of primary anæmia in which the diagnosis is rendered possible only by blood examination. Lymphatic leukæmia is by this means diagnosed from Hodgkin's disease, tuberculous or syphilitic adenitis and sarcomatosis of the glands, while splenomyelogenous leukæmia is differentiated from Banti's disease, chronic malaria with enlarged spleen, tuberculosis or syphilitic malignant growths of the spleen, hydronephrosis or renal or ovarian neoplasms. In diabetes, the Williamson test would be of great value, and too little has been done in connection with the Justus test in syphilis. The blood conditions in diphtheria and scarlet fever are mentioned, a high percentage of myelocytes in the former being regarded as an unfavorable sign by Engel, while several authorities regard an increase of cosinodhiles in the latter disease as a favorable sign. In anæmia, whether primary or secondary, the prognosis is goverened by the blood examination. The study of leucocytes, especially in surgical cases, is also mentioned, and in exanthemata, where presence of leucocytes point toward one or the other condition. The value of leucocyte counting in surgery is important, esdecially in appendicitis. Two cases are reported showing its value. —*Jour. Amer. Med. Asso.*

Fractures of the Elbow Joint.

Scudder (Treatment of Fractures) says that fractures of the internal epicondyle, of the internal condyle, of the external condyle, and T–fractures into the joint are best treated by the "acutely fixed position." "Experimental evidence both upon the cadaver and on the anesthetized living subject, confirmed by clinical experience extending over a number of years in hospital an private practice of many different surgeons, demonstrates that the 'acutely fixed position' actively reduces and holds reduced the fractures previously named."

In the 'acutely fixed position,' the coronoid process in front, the trochlear surface of the olecrenon behind, and the fascia posteriorly and laterally, together with the tendon of the triceps posteriorly, hold the fragments reduced and close to the shaft of the humerus." Traction, lateral pressure on the fragments with gradual flexion of forearm to an acute angle will correct the malpositions. The joint is put upflexed by a large piece of adhesive plaster passed around wrist and arm, gauze being put between skin of the arm and chest and in flexure of elbow to prevent chafing. The arm is then strapped to the side and supported. Watch the circulation closely and aviod excessive congestion.

This method of treatment preserves the "carrying angle" of the arm; other methods fail to do this.—W. R. J. in *Mobile Medical and Surgical Journal.*

Surgical Treatment of Puritus Vulvae.

Tavel (Rev. de Chir., No. 2, 1902) advocates resection of the internal pudic nerve in the treatment of obstinate vaginismus and pruritus of the vulva, and reports two cases in which he applied this treatment with guod results. This method of dealing with painful affections of the external genital organs of the female, though first practiced by Simpson, of Edinburgh, forty years ago has not, it seems, been repeated by the other surgeons for vaginismus, although it has occasionally been tried for the relief of certain painful forms of chronic urethro-cystitis. The author discusses at length the surgical anatomy of the internal pudic nerve and its different branches, and describes his method of operating on this nerve. The external incision on either side of the perineum, which is about 4 in. in length,is carried directly from before backwards in the middle of the fossa between the tuberosity of the ischium and the outer margin of the anus. The nerve—the course of which is indicated by the pulsations of the accompanying artery—is carefully separated from this vessel and followed backwards to its trunk. The main divisions supplying the muscles of the vulva and the painful area of integument are divided near their origins and the peripheral portions of the nerve twisted and torn away. In this operation care must be taken to avoid the inferior hæmorrhoidal nerve and the anal twigs of the deep perineal branch.—*British Medical Journal.*

Medical Progress in China.

That the remarkable opening of the doors in the Far East has not been confined to political and commercial lines, is simply demonstrated by the perusal of a recent number of the China Medical Missionary Journal. The prejudices of that interesting people, the Chinese, against all innovations,

and especially those originating among the "foreign devils," are surely, and now not slowly, being overcome. As is well known, the Chinese are averse to exposing their women to medical care of male physicians. In addition, they are known to be most strenuously opposed to the use of the knife. A more than passing interest, therefore, attaches to the report of a case of Cesarean section contributed to the Journal by Dr. Lucy B. Harris. The patient, a scoliotic individual of 20 years, with pronounced contraction of the pelvic outlet, was eight months pregnant, and at the time of delivery had been for six days and five nights in labor. As was to be expected, there were pronounced vulvar edema and beginning vaginal gangrene. Spontaneous delivery being impossible, it was decided to admit the woman to the London Mission Hospital at Chungking in order that a Cesarean section should be performed. To both these propositions the relatives and friends of the patient eagerly assented. The operation was performed by two male surgeons, Drs. Wolfendale and Kilborn, a dead and macerated fetus extracted, a uterine rupture repaired, and the patient returned to the ward. Unfortunately a fatal termination ensued in fifteen hours.

Laying aside all criticism of the method of treatment adopted in the given case, it still remains true that the report is unique in that it demonstrates the awakening of the Chinese people to modern medical methods. It is unfortunate that the moral influence of the case could not have been enhanced by recovery of the patient. The conditions, however, were most adverse—a protracted labor, sloughing of the soft parts, maceration of the fetus, degeneration and laceration of the uterine tissues, and beginning sepsis. Under such a combination a fatal result must have been anticipated. The barriers are breaking down, however, and it will not be many years, or even many months, before the large seaboard cities of China will witness as good surgery as is now done in western lands.—*Philadelphia Medical Journal.*

Growth of New Bone from Periosteum.

J. H. Branth gives the histories of one or two cases illustrative of the fact named in the title of his paper. He says that injuries to the periosteum will often cause a neurotic condition of the underlying bone of more or less depth until the inflammatory condition and its walls form a barrier against further invasion. Quietude and healing in the part do not set in until the dead matter is ousted from the body; the dead matter, having reached the surface of the bone, often finds an especial resistance in the periosteum, and, as a consequence, the periosteum, besides becoming involved in the inflammatory process, is then dissected up further from the underlying bone by the pressure of the abscess matter. Now, more bone surface is denuded and deprived of one source of nutrition, that of the periosteum, and the pyogenic germs find less resistance in the half-starved living part, the *locus minoris resistentiae*, and more or less of the bone is involved before the inflammatory process can make its way out through the periosteum, which latter has the greater vitality. In this way it may occur that after necrosis of a part of a bone, the periosteum having been lifted off the bone may deposit osseous cells on its lower surface, and so build a bridge, as it were, over the necrotic substance for some distance, while at some small outlet the *debris* makes and finds its exit. The internal dead bone is the sequestrum, and the newly formed bone is the involucrum. Such a condition will not permit healing until the sequestrum is removed, which nature alone accomplishes by a slow disorganization into *debris* until it is removed through the avenues of exit.—*N. Y. Med. Red.*

Renal Tension and its Treatment by Surgical Means.

The satisfactory termination of many cases of exploratory incision into the kidney for various suspected lesions which were not found at the time of operation leads Harrison to infer that renal tension has been the cause of the symptoms, and that the relief of this tension by incision has been responsible for the good results, just as marked mitigation follows iridectomy for glaucoma, and orchitis subsides after puncture or limited incision. It is not to the study of dead kidneys, but rather to the palpation and inspection of the living organ *in situ*, that the conviction of the importance of tension in the production of some of the conditions which are included in the term of Bright's disease is due. Six cases are cited in which incision was followed by recovery. One was scarlatinal nephritis, one a nephritis from exposure to cold, one a nephritis associated with injury, and one a cystic degeneration of the kidneys developing after trauma. The following may be regarded as some indications for relieving tension surgically in cases of nephritis, however arising: (1) Progressive signs of kidney deterioration, as shown by the persistence or increase of albumin when it should be diminishing or disappearing from the urine, as in the natural course of inflammatory disorders, ending in resolution; (2) marked suppression of urine or approaching this state; (3)

where a marked disturbance of the heart and circulatory apparatus arises in the course of inflammatory renal disorders. The author prefers making the incision along the convex border of the kidney; punctures may be made wherever the congestion seems greatest, but it is well to avoid the pelvis of the organ. Drainage is essential; a rubber tube usually remains in place from a week to ten days. The question as to which organ should be selected for incision is of little importance, unless there be marked pain or some other definite indication for one side or the other, as division of the capsule of one kidney reflexly lowers the tension in its complete recovery followed exploratory incision of the kidney for the calculus in which no stones were found. He believes the best subjects will be those who present a subacute nephritis. Cousins thinks the most favorable cases for surgical measures are the acute inflammations associated with infection through the blood. Barling said that the majority of cases of renal tension were bilateral, and that they could only be relieved by medical measures and local treatment, such as cupping, applicable to both sides. Chicken deprecates the opening of the capsule for high tension alone.—*Indian Medical Record.*

Hygiene of Dairy Produce.

F. Loeffler (Deut. med. Woch., Nos. 51 and 52) deals in minute detail with the methods of safeguarding against the noxious effect of altered dairy produce. He includes milk, butter, cheese, buttermilk, and whey. He points out that the method of mixing large quantities of milk from various sources is fraught with many dangers, and calls for special treatment. Milk is, as he says, a secretion which can easily be influenced by different kinds of causes. Certain forms of food may be non-poisonous to the cows and yet form poisonous substances in the milk. He deals with Braungart's assertion that summer diarrhœa of children is in great part due to the ingestion of the plantcolchicum autumnale, which grows plentifully on chalky soil but leaves the matter as unproved. But it is certain that many forms of food are directly noxious to the milk. Prussian law has laid down faily strict rules as to which forms of fodder may not be given to milch cows which are to supply nursery milk. Another danger exists in using milk taken from cows which are being treated by a variety of drugs. This may occur without any wilful deceit on the part of the owner of the cow. Dealing with infective disease, he dismisses foot and mouth disease as causing but little danger to human beings who take the milk. The milk should, however, be heated to 85. deg. C., which temperature, according to Uhlenhuth, suffices to kill the micro organisms of the disease. Mastitis in cows is a grave danger. The milk may produce intestinal inflammatory lesions by the presence of streptococci. The danger is greater than one would imagine, since the milk of a single cow suffering from mastitis may infect very large quantities of milk from other cows. Since the German law forbids the sale of milk obtained from cattle suffering from anthrax, pleuro-pneumonia, cow-pox, and hydrophobia, it is unnessary to deal with the effect of these diseases on the milk. Tuberculosis of cattle is, however, of great importance, for its distribution in all countries is extremely wide. When the milk is mixed from many cows, and even from many farms, one is almost certain to be able to find tubercle bacilli in it. In butter bacilli are also very frequently present, and also in cheese. Tuberculous disease of the udders of cows affects between 1 and 2 per cent. of all milch cows, while other lesions of the same nature are found in between 40 and 50 per cent., or even higher. The milk of the former certainly contains tubercle bacilli, but, according to Ostertag, the milk of cattle, which react to the tuberculin test but have no disease of the udders, rarely does so, and therefore present no especial danger.

Loeffler gives a summary of Koch's statements at the British Congress for Tuberculosis, and absolutely endorses all that he said. He recounts the investigations of Ernst, but finds that the only reply to his circular (sent to medical practitioners and veterinary surgeons in America) of importance was that of Peabody. It appears, from this reply; as if a baby had been directly infected with tuberculosis by the milk of a tuberculous cow, but the subjest requires much more exact investigation. On the other hand, Baumgarten reports that twenty years ago an attempt was made to inoculate a medical man who was suffering from an inoplerable sarcoma with the bacilli of bovine tuberculosis, by way of experimental treatment. In spite of a considerable quantity of bacilli having been introduced beneath the skin, neither local nor general tuberculosis resulted. He deals in further detail with this question. Milk and its products may be the carriers of other infective organisms; for example, typhoid, diphtheria, and scarlatina. The first-named is frequently carried by milk, while there is some doubt existing as to whether the second disease can be spread by contaminated milk. That scarlatina is at times so caused is proved by English literature. Loeffler will have nothing to do

with the addition of chemical reagents, which inhibit the growth of various organisms which may be present in milk. He recommends the coagulation test with alcohol to discover such "doctoring." The only way to deal with infected milk is to heat it. Against so called "milk dirt" he advises filtration, preferably carried out according to Fliegel. Milk that has been heated to 85 deg. C., and filtered, should be kept at a very low temperature if it has to be sent away to the consumes. The heating need only be kept up for one or two minutes, and is best carried out in a pasteurised apparatus. Cream, too, be can pasteurised without spoiling it, and the butter made from it will be found to be pure and good to taste. There appears to be some difficulty in preparing cheese from pasteurised milk, but Klein contends that even aften heating to 90 deg. C. a milk can be turned to cheese, by the addition of a small portion of ripe cheese, in fifteen minutes, and Hamilton states that after heating to 102 deg. C. the addition of sour milk will suffice. Even after all this care has been expended on milk and its products in the dairy the danger is not over. In the household of the consumer it should be again subjected to a temperature of 70 deg. to 85 deg. for thirty minutes and cooled down in the same vessel, which of course, must be very clean. In the dairy all utensils, etc., must be sterilized with boiling soda solution. Although he says that the subject is not by any means exhausted by his account of it, he claims that with these precautions the risk of harming the whole population, and especially the juvenile portion of it, will be very greatly diminished.—*British Medical Journal.*

The Advertising Doctor.

The medical profession cannot hope to wage successful war against the advertising quack until the public is made to understand why the charlatan advertises and why the honest physician does not. The atmosphere of mystery with which Christian scientists; magnetic healers, and the like, surround themselves, affords sufficient protection from the criticism which would be likely to have weight with their feeble-minded followers. But not so secure is the self-styled eminent universal specialist, who depends upon his success upon lying, and often obscene, advertisements, the absurdity of which can be demonstrated in a way that will convince even the densest intellect. With him the sun of prosperity will have forever set when it becomes a matter of common knowledge that his object in publishing list of symptoms (which he knows the lay mind cannot properly interpret) is to mislead the imaginative and credulous into believing themselves to be the victims of disease, and that in publishing his absurd claims to the superior skill and knowledge he deliberately sacrifices both honor and self-respect for cash. Even now the majority of intelligent laymen understand that the doctor who advertises in the usual way is at once a disgusting egotist and a designing scoundrel, whose privilege to impose upon the ignorant members of society should be taken from him by due process of law.—*Texas Medical Journal.*

Note on the Blood Relationship of Man and the Anthropoid Apes.

Albert S. F. Grunbaum reminds us that the serum from ananimal—*e. g.*, a rabbit—which has been injected intraperitoneally several times with any given organic fluid will, if mixed in small quantity with a dilute solution of the fluid used for injection, produce a more or less marked precipitate. To such a serum has been given the name "anti-serum." Hence the serum from a rabbit that has been treated in this way with human blood, which gives a precipitate with human blood, may be, although somewhat paradoxically, called "human anti-serum." Adopting the general mode of application of the test. the author finds that "human anti-serum" gives a precipitate with three species of anthropoid apes, and to him this precipitate is practically indistinguishable from that obtained with human blood either in quality or quantity. Occasionally it has seemed that the blood of the orang gave a more gelatinous precipitate of the other bloods, but this may have been due to accidental circumstances. The granular precipitates from other bloods are also liable to become sticky when shaken up. But it is not only by the action of "human anti-serum" on anthropoid blood that the close relationship of the various bloods may be demonstrated. He has prepared gorilla, orang, and chimpanzee anti-serum. Tested in the way described they all react, not only with their own blood, but with each of the others, and also with human blood. Here, again, in the absence of definite standard, he is unable to assert that there is any difference of reaction among the many combinations of anti-serum and blood which can be made with the four abovementioned bloods and sera. He has not noticed any record of a microscopical application of this test applied in the same way as in serum diagnosis. By this method using one drop of 1 per cent. blood solution with one drop of anti-serum, a result is produced reminding one very much of the clumping of bacteria, and in this way, too,

it is possible to differentiate human and anthropoid blood, because there is an earlier and more complete reaction when the antiserum is used on its own blood.—*Indian Medical Record.*

Cyclical Albuminuria

P. Edel (Munch. med. Woch., Nos. 46 and 47, 1901) has carefully observed the phases of cyclical albuminuria in three cases and from the study of these cases has drawn certain conclusions: The patients all presented the same clinical picture of nervous, weakly, non-resistent body habit, without any organic lesion save that producing the albuminuria, which varied according to the position (standing and lying), and had its maximum intensity during the forenoon. He found that after the "midday" dinner (taken at various hours) the albuminuria disappeared, to reappear again in the evening. He caused the meal to be passed over, and no diminution of the albuminuria took place. He next employed a diuretic (Potassium acetate), and observed the effect in conjunction with fasting. The urine became alkaline and free from albumen. The quantity of urine appeared to have a direct connection with the presence or absence of albumen. In free diuresis the urine was pale, and there was no albumen, while when the urine was sparse the color was dark, and albumen was found usually up to 0.4 per cent. The effect of hot baths was relatively the same. Turning his attention to the pulse, he found that in the morning, while the patients were getting up, and especially during washing, the pulse was very small, but this change was not to be noted during the same movements in the afternoon or evening. The pulse volume, representing the amount of resistance in the arteries, was directly in proportion to the amount of albumen secreted at the time by the kidneys. Turning this to therapeutic use, he watched the effect of marching, in soldierly fashion, up hill, and even up mountain. Carrying this out, short of fatigue, he succeeded in producing a secretion of pale urine, free from albumen. The *rationale* of this treatment lay in the calling forth of systematic exercise on the part of the heart. He obtained good results when he ordered a very nourishing and sustaining diet in concert with mountain climbing, and claims that after a time these results were permanent. In connection with this subject, he mentions that the same procedure has proved beneficial in certain cases of true nephritis, although he adds that he has only been able to observe the effect during a relatively short period. —*British Medical Journal.*

Decapitated Fetus and Rupture of the Uterus.

Durlacher (Deut. med. Woch., Nov. 7, 1901) reports a case of difficult labor, illustrative of the disastrous effects of applying a wrong treatment. A primipara was taken in labor on November 7th, 1900, at 2 a. m., and on the 9th, at 1. a. m., he was asked to go to her assistance, with the remark that two practitioners were already there. The fetus itself was born, but not the fetal head. The history given on arrival by the practitioner in charge was that the membranes had ruptured in the early hours of the 7th, but no presentation could be felt. On the 8th the vertex was felt above the brim. Attempts were made to deliver the fetus with forceps. As this failed, at 7 p. m., version was performed, the fetus still being alive, and as the head would not follow such forcible traction was employed that it tore off and remained in the uterus. The nurse stated at a later date that after two hours of unavailing manipulation the practitioner decapitated the fetus. Durlacher found the patient with an anxious expresssion, extreme pallor of face, and some cyanosis of lips, dyspnoea, vomiting, and yawning. The abdomen was very tumid. The pulse was thready. On examination he found the stump of the neck, the chin and the face of the fetus inside the uterus, while the vault of the skull protruded through a rupture of that organ. There was much blood clot in the vagina. The placenta was still slightly adherent to the fundus. This was removed without difficulty, and an attempt was made to bring down the head with a blunt hook introduced into the mouth, but the jaw gave way. As a last resort he performed laparotomy. He had to wait, as the patient was in a very collapsed condition, and indeed he believed that she was dying. A few hours later—twenty-nine hours after the rupture of the uterus—he performed the operation, but she sank and died a few minutes after its completion. The fetal skull gave the following measurements: Long. diameter, 3 ins.; the largest transverse diameter, 2½ ins.; the small transverse diameter, 2¼ ins. The pelvic measurements were: Dist. spin. ill., 6.6 ins.; dist. crest. ill., 6.4 ins.: diag. conjug. 2.7 ins.; conjug. vera, 2⅛ ins. The fetal skull was very hard and allowed of little moulding. Durlacher considers that although a true conjugate of 2⅛ ins. allows at times of a spontaneous birth, the condition of the patient rendered it dangerous to wait for Nature to help the patient. He puts aside the question of application of forceps as wrong treatment, and he also considers that version was attended with too great a rupture to be justifiable. The cor-

rect procedure, he says, without doubt, was craniotomy, for the surroundings and the length of time that labor had already lasted almost robbed Caesarean section of its chance of obtaining a live child and still preserving the life of the mother. Discussing the case at the stage after version has been performed, he says that a short attempt with forceps to deliver the after-coming head would have been justifiable, and this failing, craniotomy should be then performed. Criticising his own procedure, he states that he felt impelled to make a desperate attempt by performing laparatomy, even under the most adverse circumstances, although he realized that the attempt was likely to be attended with success.—*British Medical Journal.*

ADVERTISEMENTS.

Somnos,

Somnos, chemical formula C-9 H-11 O-6 Ci 9, is a new synthetic product of the H. K. Mulford Co.'s laboratory. It is formed by the synthesis of chloraethanal with a polyatomic alcohol radical. It is free from local irritation to mucous membranes and is not changed by the gastric juice.

It is a safe and reliable hypnotic and cerebral sedative, from depressing effects upon the heart, respiration or vaso motor centres.

Physiologic Action.

In the human being Somnos produces sound, dreamless sleep of several (average six to eight) hours duration, from which the patient awakens refreshed and without the headache, languor, mental confusion and intoxicationlike symptoms which commonly follow the unusually employed hypnotics. The sleep produced by Somnos differs in no perceptible essential from that of a normal healthy man; records of the frequency and volume of the pulse and respiration show no diminution from the same in normal sleep.

This nature-simulating sleep induced by Somnos is due to the selective action of the product upon the psychic and motor functions of the brain; this has been indisputably proven by extensive experiments upon the lower animals.

Comparative Animal Experiments.

Before Somnos was tried upon human beings careful comparative tests were made upon the lower animals, under exactly similar conditions, with chloral hydrate and several of the well-known newer synthetic hypnotics.

The majority of these comparative tests were made between Somnos and chloral hydrate because preliminary animal experiments proved that, of all the hypnotics employed, chloral hydrate is the most reliable and because this remedy is so widely employed that accurate knowledge of the relative merits of Somnos and chloral hydrate was deemed desirable. All comparative tests showed that Somnos, given in twice the *fatal dose* of chloral hydrate, merely produced natural sleep, from which the animals awakened in a normal condition. It is, therefore, self evident that Somnos is a much safer hypnotic than chloral.

Furthermore, careful comparative studies of the effects of Simnos and chloral hydrate upon the heart, respiration, vaso-motor and thermotaxic centres in the medulla show that while, as is well known, chloral hydrate depresses and ultimately paralyzes these, Somnos, even in twice the sleep-producing dose, has no appreciable effects upon them; hence it is clear that the therapeutic dose of Somnos can have no deleterious effects upon the heart, circulation, respiration or temperature of human beings. Somnos is free from effect upon digestion, the bowels and kidneys.

Clinical Experiments.

As the results of clinical trial in hospital and private practice, five very important facts have been established:

First.—That Somnos is a reliable, uniformly active hypnotic; this fact was noted even in those cases uninfluenced by chloral and the usually-employed hypnotics.

Second.—The sleep produced by Somnos exactly simulates natural sleep. This fact corroborates the results of animal experiments, which show that the dominant action of Simnos is upon the cerebral cortex (psychic and motor areas).

Third.—That Somnos is a safe hypnotic, free from depressing influences upon the heart, circulation and respiration. This was proven by administering Somnos to patients the subjects of organic heart disease [myocarditis, valvular affections] and pulmonary lesions [emphysema, pneumonia, etc.]

Fourth.—Somnos does not induce unpleasant by or after-effects. Languor, headache, vertigo, nausea, vomiting, giddiness, mental confusion and digestive disturbances, which are practically always present after the use of chloral hydrate and most, if not all, hypnotics are not induced by Somnos.

Fifth.—Somnos has a peculiar calmative influence upon the condition of nervous irritability usually present in neurotic, neurasthenic and hysterical patients; in other words, Somnos is an effective general sedative.

Indications.

Somnos is indicated in sleeplessness and nervousness, from whatever cause; compared with chloral hydrate, it is safer, more reliable, and free from after-effects.

1. In the insomnia of nervous affections, such as hysteria, neuralgia of nervous irritability, etc., Somnos produces natural, refreshing sleep.

2. In the mental excitement of acute mania, delirium tremens, dementia and chronic insanity, Somnos is preferable to all other hypnotics because of its selective action upon the disturbed psychic and motor areas of the brain.

3. Sleeplessness occurring in the course of organic cardiac disease (valvular affections, myocarditis, fatty degeneration, etc.) may be safely overcome by the judicious use of Somnos.

4. In acute infectious diseases, such as typhoid fever, pneumonia and influenza accompanied by insomonia, Somnos produces excellent results because of its freedom from depressing effects upon the enfeebled cardiac and respiratory functions.

5. In insomonia due to pain, Somnos produces sleep in the majority of cases; it is, therefore, of service after surgical operation.

6. Somnos yields satisfactory results in a large proportion of the cases in which chloral is without effect. and particularly in patients with wrecked nervous systems, for whom hypnotics are necessary, but are usually found of transitory or negative value.

7.—Somnos is of especial value in the eruptive diseases of childhood.

Directions.

The average hypnotic dose of Somnos is from one dessertspoonful to one tablespoonful in water or milk; repeat once or twice if necessary. As a sedative, one to two teaspoonfuls, repeated at intervals of three or four hours. For children, one-half to one teaspoonful, according to age; repeat once if necessary.

The hypnotic effect of Somnos is sometimes rather slow in developing; this is due to the gradual evolution in the system of its active hypnotic ingredient. Hence is is advisable to administer Somnos several hours before the desired advent of sleep; this may be in the afternoon, early evening or according to circumstances.

Epilepsy.*

How little we know of this disease. Theories, we have many, but they do not help to a cure. Of its pathology, we may be said to be profoundly ignorant. Persons who have been epileptics for years die from some inter-current disease, and on post mortem, the brain, the spinal cord and nerves are found in a healthy condition. McLane Hamilton, in his article on Epilepsy, in Pepper's System of Medicine, says: "An epileptic attack is nothing more or less than a discharge of nervous energy from an over-excited, or what may be called a dynomo pregnant nerve centre or collection of nerves." That is simply a theory, and makes no impression on my mind of any therapeutic value. Hamilton says heredity plays a most important part; fifty per cent. of his cases had hereditary history. Osler, in his last edition, plays but a minor role, and that French physicians, with whom he has conversed on the subject, hold the same opinion. My experience is not large but, such as it is, I endorse Hamilton's views. After repeatedly reading articles on this disease, in all our standard works on practice, I rise from their perusal, convinced that I have not learned anything of practical benefit. These articles are written by men, who, if I may say it, seem to be writing to earn their money. The divisions and sub-divisions which they make of the disease are not met with in ordinary practice. It would seem as if they lived in a world of their own, where, possibly, because they do a large consulting practice, peculiar cases are sent to them. So far as my experience enables me to observe, and it has extended over forty years, I have not been able to diagnose any special features in the cases which have come under my observation. Practically, all have had the same symptoms, the only difference being one of degree. Until the introduction of the treatment of this disease by the bromide of potash the unfortunate sufferer received little or no benefit from the drugs employed. The routine was the administration of antispasmodics, such as valerian, ether and musk. It was about fifty years ago that the bromide of potash was recommended to the profession, and, even when ten years later I entered the profession, it was the drug which apparently had given the best results. Some absolute cures were recorded. I well remember the late Dr. Waburton Begbie, of Edinburgh, telling me that one of the brightest intellects at the Scotch Bar, who had developed epilepsy in early

*Francis W. Campbell, M.D., L.R.C.P.L., D. C. L. Dean and Professor of Medicine, Faculty of Medicine, University of Bishop's College.

youth, had been cured by this medicine. From that day up to the present time it has been the drug which has been precribed in seventy-five per cent. of all cases. Bromide of sodium has, with some, taken place, while a combination of bromide of potash, bromide of soda and bromide of amonium, in the proportion of 1. 1. 1-2 is the favorite of a few. There are, of course, others which are recommended, such as belladonna, ergot, hydrobromic acid, nitro-glycerin. But to-day the bromides are still the standbys of the profession in this disease, and yet I fail to learn that many absolute cures are recorded, though I freely admit that in many cases they have diminished the frequency and severity of the attacks. If they have done more I do not know it. I have prescribed it sometimes alone and sometimes in combination with the other bromide salts, because, perhaps, to be honest, I knew no better treatment. My experience extends to about twenty-five cases; some have died from some intercurrent disease, [I never have had a death during a convulsion], and some I have lost track of. At the present time I have under observation and treatment four cases, the last having been under my care only a few weeks; the other three for periods varying from forty years to ten years and two years. I bring them before the profession, because, since 1898 I have placed them on a preparation to which my attention was drawn by an advertisement in one of my "Medical Exchanges," I being editor of the Canada Medical Record. That preparation is Pil Ferri Hydrocyanate, and it is manufactured by The Tilden Company, of New Lebanon, N. Y. The following is its composition: ℞ Hydrocyanate of Iron [Tilden] 60 grains, Extract of Hyoscyamis, 60 grains, Mucilage, q. s. Divide into 120 pills, one to be given night and morning, and increased one pill every three weeks until three pills are taken at a dose. A pill double this strength is also made.

A. C. was married in 1861, at the age of 22 years. So far as I can ascertain, previous to marriage, she never had an attack of grand mal. She, undoubtedly, had many attacks of petit mal, occurring, so to speak, in clusters. They would be absent for months, and then recur, many occurring in a day, and then disappear again. Her husband did not know this at the time of his marriage, nor for some time after. It was not till the spring of 1862 that she became pregnant, and in August, when quickening occurred, she was one night seized with a severe convulsion I saw her immediately, and recognized at once its character, that of a severe epileptic fit. It was at this time I discovered the patient's history, as I have briefly stated it. I also learned that she had been wet-nursed by one who had had, at long intervals epileptic attacks, and whose son had developed the disease. From this onward she had occasional attacks, but went to her full period, and was delivered of a healthy child. She also made a good convalescence, and her baby was nursed by a healthy wet nurse. The treatment adopted was 15 grains of bromide of potash three times a day, with a half drachm at bedtime. It is needless to give minutely the history of this case, extending over so many years. Briefly, however, it is as follows: She subsequently bore three children at full term, all of whom are alive and in good health. She also was delivered of three children, about the seventh month, all of whom died within a few days of birth. During the interval between the first attack and the year 1875, a period of some thirteen years, she had severe attacks, generally about the menstrual period, and they invariably occurred at night. An attack during the day only took place two or three times during that period. This fact enabled her to move about freely, going to church, social gatherings, etc., and did not necessitate a companion being with her. The night attacks varied in severity, but, generally, were very severe, indicated constantly by minute extravasations after a fit, over the face, down the side of the neck and encroaching on to the upper part of the chest. On one occasion, during the fit, she got the heel of the left foot over the nail of the right big toe, and forced it so loose that it was the following day removed by Dr. Roddick. She visited Scotland several times and consulted eminent men, who made no change in treatment, beyond increasing the dose to 20 grains three times a day, and 40 grains at bedtime. Special attention was directed to be given the bowels, so as to have on good motion daily. She, up to this time, had taken the bromide very regularly, but her intellect and spirits continued perfect. In 1875 there gradually developed a singular change, the night seizures took place at longer intervals, and day seizures took their place, until 1880, during which year no night seizures occurred, and day seizures alone occurred. It had been rare for more than two fits to take place on the same night, but four and five seizures during the day was now common. This was a serious change for the patient and her friends, and necessitated the employment of a companion to be constantly with her. It prevented her going to evening amusements, or for walking out, except after a week succeeding a fit, when this was permitted for two weeks. During this time the chances were against the

patient having an attack, as there was generally about a month between the fits. As a matter of fact, during several years, only one severe attack and two or three slight ones occurred, while the patient was thus allowed out. At this time a change was made in the treatment—that is in the autumn of 1883. The patient was placed on one drop of a one per cent. solution of nitro glycerine in a teaspoonful of water, 3 times a day after meals. Bromide of soda was now given instead of potash, in a 20-grain dose, morning and evening. The nitro-glycerine was increased gradually, till in six months, five drops were taken. Within six months of commencing the nitro-glycerine there was evidence of its doing good; the frequency of the attacks was diminished, two months elapsing between attacks, and their severity was less. Twice four months elapsed during 1888 and 1889 without a fit, and the patient and her friends were most hopeful. But in 1890 the attacks were more frequent, and the patient was discouraged. Still the nitro-glycerine was continued, and once more in 1891 the attacks, though hardly less frequent, were certainly again less severe, and she seldom had more than one fit on the same day. During the time intervening between 1892 and 1897, the bromide of soda was discontinued, and a mixture of bromide of potash and sodium, with bicarbonate of potash and tincture of columba substituted. The nitro-glycerine was continued at intervals, though not regularly, as the patient's stomach began to rebel and show a certain amount of irritation. In November, 1897, my attention was accidentally drawn to the benefit said to be derived in this disease from a pill of the hydrocyanate of iron, manufactured by the Tilden Compony of New Lebanon, N. Y. I sent for some literature on this subject, and in January of 1898, I placed the patient on this pill, the composition of which I have already given.

Within four months from commencing this remedy a decided improvement was noticed. The patient had, during this time only two attacks and they were decidedly less severe, the epileptic sleep was much shorter, and the patient regained her faculties sooner. The pills were, during the last six months of 1898, increased to six daily, during which time only three fits occurred, with occasional attacks of petit mal. In 1899 she was placed on the double strength pill, commencing with three, which was practically the same dose, and was increased every two months by another pill, till five were taken. This dose the patient has continued to take night and morning ever since. During 1899 she had only five attacks. In January, 1900, she had a slight fit, and on the 21st of February she had a severe fit. From that date, up to the first of February, 1902, she was absolutely without a fit, though there was occasionally slight attacks of petit mal, but on the 2nd of February, 1902, while at dinner, she was seized with an attack, which at first seemed as if it would only be a slight threatening, but it developed into a fairly severe fit, though not as severe, by any means, as those she generally took before commencing the Hydrocyanate of Iron. Looking back over the history of this case, which is but a mere outline of forty years, I have no hesitation in saying that this pill has done far more for my patient than any other drug she has taken.

I had hoped when I began writing this case, that I would have been able to state that she was absolutely cured of the grand mal, having been nearly two years without a fit, but the attack on February first makes it impossible. Still, when we consider that for nearly two years she had been practically absolutely free from the disease, the influence of the Hydrocyanate of Iron must be admitted as being the most powerful for good in this disease.

Case 2.—Miss W., a woman of about 28 years of age, unmarried, consulted me in March, 1900, for epilepsy. Had been subject to the disease since the age of 15 years. Had occasional treatment without relief. No hereditary history. She took the fits always at night, generally two, and they came on every month, occasionally two or three times in a month. I placed her on the 1-2 grain Hydrocyanate of Iron pills, one night and morning, and increasing one pill every three weeks till five were taken, when I changed to the one-grain pill of which she is now taking four night and morning. I prescribed half a drachm of bromide of potash at bedtime. The effect of the pills was very marked, as during the first three months she had only one attack and mild. Then four months elapsed without a fit, and, believing herself cured, stopped the pills, when the disease returned as severe as ever. On their resumption, the beneficial effect was again marked. Two or three times since, not having the money, she was unable to get the pills, and their discontinuance was invariably followed by return of the attacks in a severe form. At the time of writing she had taken them steadily for nearly four months, and has only had one mild fit.

Case 3 —A. L., aged about 27, a blacksmith by trade, and a patient of mine from birth, developed the disease about the age of 17. No cause could be ascertained, except that about that time he seriously abused

himself with liquor. The fits came on every two or three weeks, and he has had as many as five in one night. I placed him on the nitro-glycerine treatment, with moral treatment added. He certainly was benefited by it, as their frequency and severity was diminished. In 1899 he married, and shortly after the fits returned as bad as ever. I then put him on the Hydrocyanate of Iron, when he went nearly five months without one, but, going on a spree of some two weeks, they again returned, but not so bad. I cannot get the patient to take the pills regularly, so that he does not give them a fair chance. His family, however, recognize the great power they have over the disease.

Case 4.—K. W., clerk in an insurance office, aged about 35 years, was in 1890, referred to me for epilepsy. The attacks came on irregularly, night and day, and were a mixture of both the grand mal and the petit mal. I put him on the nitro-glycerine treatment, with bromide of potash, night and morning. No apparent beneficial result followed. In fact, the attacks rather increased, till he was discharged from his situation in 1895, on account of having several severe attacks in the office. Before this he had been, singular to say, free from any severe attack while at work, though petit mal attacks had been numerous. At this time the nitro-glycerine was discontinued, and the patient put on bromide of potash alone, which seemed to diminish the frequency, but not the severity of the fits. Upon one occasion during this year, after an attack, he was so violently insane that I was sent for, and only succeeded in getting him quiet by a hypodermic of morphia. In 1896 he came to my office but seldom, and, I think, only once in 1897, when the report says, "no improvement." I did not see him again till the first week in October, 1901, when he came to my office, and I have the following entry in my note book: "Patient continued my treatment till the spring of 1900, when, seeing no benefit, upon the advice of some friend, he began to take a medicine which was said to have completely cured a prominent gentleman in St. John, N. B. I can not find out what this medicine was. The patient, however, says it not only did him no good, but under it became much worse, till, at this time, he had a severe fit every ten or fifteen days. I placed him on the Hydrocyanate of Iron, giving the one grain pill, and with instructions to increase one pill every three weeks. The patient has reported me once a month since he began this remedy. The following are the reports up to date (March 18). October 31, 1901. No attack since commencing the pills. Nov. 30. Only one slight seizure. This was taken in church, and was simply a shadow. He sat in the last seat, and few, I am told by his brother, recognized anything unusual. Dec. 30. One slight seizure at night during this month. June 30, 1902. No attack this month. March 18. No fit since early in December. These reports show a marked improvement, and his friends recognize a general improvement in his condition. There can be no doubt of the beneficial effect of the Hydrocyanate of Iron in this case.

Case 5.—A. R., aged 15, came to my Clinic at the Montreal General Hospital on the 23rd of January last. Had his first epileptic fit at the age of eleven years. They recurred at first at intervals of five or six weeks, but for the last year they came on more frequently, till at the time he came to the Hospital he took a severe fit every four days. He was placed on the Hydrocyanate pills, one night and morning. He was then two weeks without a fit, when one occurred on the 6th of February. About a month elapsed without a fit, when he had one on the street on the 4th of March. He was left lying in the snow, and the following day, developed a pneumonia of the base of the right lung. On the 26th of the present month he is convalescent, and has not had another fit. While this case is not cured, it is cited to show that the Hydrocyanate of Iron has already vastly improved the patient. He had been under other treatment before coming to the Hospital, and not only had there not been any improvement, but the patient had steadily grown worse.

Treatment of Epilepsy.

In the treatment of this protean disease, two most important indication have to be met. The treatment of both the convulsive seizure and the underlying cause.

Attacks preceded by a well defined aura are often arrested by some artifice, such as constriction of the limb in which the aural sensation arises, pressure on the supra-orbital nerves, the application of cold, etc.

The inhalations of the various anesthetics such as amyl nitrite, ether, chloroform, etc., have been much lauded for the arrest of the crises, but their absorption is often too slow to produce the expected result. During a seizure, arrest of the convulsion is impossible and the only measures to be taken are those for the prevention of injury and suffocation, and at times, resort to artificial respiration becomes necessary. The somnolence following the crisis is not to be disturbed. On awakening, one-half pint of milk with one drachm of Phosphagon should be given, to be repeated

THIS JOURNAL

would have to be many times its present size to print even brief abstracts of the number of cases of Nervous Exhaustion, Malnutrition, Anæmia, General Debility, permanently cured by

GRAY'S Glycerine TONIC Comp.

It is an unequalled tonic, restorative, and reconstructive.

THE PURDUE FREDERICK CO.,
15 Murray Street, New York.

every two hours. During the attack of psychical excitement, a mustard bath, or wrapping in a sheet dipped in hot mustard water, sometime produce such good results that the patients demand it when the crisis is impending.

In the status epilepticus, the patient must be removed from every source of excitement, placed in a darkened room, and all extraneous noises excluded; when the patient awakens, he must be prevented from moving or speaking. Mechanical means for the lowering of arterial pressure may prove useful [ligation of the extremities, sinapisms, etc.]

The status epilepticus has been treated by many methods, following many suggestions. The bromides in massive doses, are far from producing the usual effect. Anaesthetics or inhalations have been employed to little advantage. Forced feeding by the stomach tube is of the utmost importance, together with Aphosphagon in one drachm doses, at each feeding, for its nutrient effect on the motor cells of the cortex cerebri.

All possible means should be used to discover the exciting cause. The condition of the viscera, especially the intestinal canal, must be investigated. Even in adults the explosion of intestinal parasites is known to have cured the "haut mal." The various reflex factors such as lesions of the eye, ear, auto-intoxications, etc., should be investigated, and finally, the diabetic or gouty diatheses should be looked for.

The advent of epilepsy in late syphilis is an indication for vigorous treatment along the usual lines. Epilepsy consecutive to cranial trauma is an indication for operative procedure.

In severe trauma, as in fracture of the cranium, with depression of fragments, the indications for operation are still more urgent. Epilepsy, under these conditions, sometimes appears suddenly and fully developed, and trephining at the site of injury is imperatively demanded. In the development of epilepsy sometime after the injury, the situation of the cicatrix, or any depression of the cranial table, indicates the site for trephining, but a permanent cure by trephining in late traumatic epilepsy is, to say ths least, problematical.

The treatment of epilepsy must be addressed to the cause, when accessible, and also against the spasmogenic tendency of the cortex cerebri. The various anti-spasmodics as camphor, opium, valerian and belladonna are still used, but bromide of potassium is still in greatest repute. The bromides produce a peculiar sedative effect on the motor area of the cerebrum and gray horns of the cord, and on non-striated and striated musculatures and the cardiac apparatus.

Sodium bromide is regarded by some as more desirable than the potassium salt, because of the tendency of all potassium salts to cause cardiac depression, also because the sodium salt contains a higher percentage of bromide. The average dose for adults is one to two drachms per diem, but some can take with advantage five drachms, or even one ounce for a short time, best given during meals with a copious draught of water.

The bromides may be exhibited in one large dose, or in gradually increasing or decreasing doses; in the latter case, one may begin with one drachm daily and add fifteen grains to the daily dose each week until 105 to 120 grains daily are reached, and then go back to the initial dose, after the method of Charcot. I much prefer the continuous method. The individual tolerance must be determined by trial. You may increase the dose by 15 grains each month in the absence of bromism. The bromides should not be stopped under any pretext except on the intervention of some acute adynamic disease in which they are positively contra-indicated. Even when the disease seems cured, the drug should be continued, in fact, the bromides become almost an article of diet for the recovered epileptic.

Acting upon the idea that the epileptic crisis is due to the hyper-excitation of the motor cells of the cortex, caused by some intimate change in the metabolism of the motor cell, I have been using Phosphagon for the last two years, conjointly with the bromides. Phosphagon is an organic combination of phosphorus, each fluid ounce being equivalent to eight grains of phosphoric anhydride. The phosphorized content of Phosphagon is obtained partly from germinating seeds, partly from animal tissues and partly from synthetically prepared organic phosphorus. The phosphorus-bearing bodies seem to be readily convertable into tissue lecithin, nuclein, protagon, etc., and thus can be explained the clinical fact that bromism is prevented and nutrition of the nerve centres maintained, even under the continuous administration of the bromides. To each ounce of Phosphagon is added 16 minims of Tincture Nux Vomica.

It is a clinical fact that epileptics are maintained in normal conditon by the use of Phosphagon even under the continuous administration of the bromide, and that this preparation is without doubt particularly useful as a direct nutrient to the central nervous system and corrective of the deleterious effects of the bromides.— *W.E. Thomas, M. D., Brooklyn, New York.*

The Family Physician of the Past, Present and Future.*

In picturing the family physician of the present day the doctor points out the unjust depreciation of his value, the unfair competition arising from the numerous systems and schools medicine, the unscrupulous practice of quacks, and the unfair compensation he recieves in comparison with the specialist, particularly the great operating surgeons. Specialization, while indispensable to the progress any perfection of our art, has likewise, when carried to excess as it is now not infrequently, left its imprint on the career of the general practitioner. The life of the faily physician of the present is much harder than it was before the advent of specialization. It is suggested that in compliance with all the rules of ethics the family physician could receive a better remuneration in cases of operations performed by specialist, by taking an active part in at least the after treatment of patients.

Lastly the author describes his conception of the family physician of the future. His studies in tuberculosis, not only as a medical but also as a social disease, have convinced him that without the aid of the family physician the solution of the tuberculosis problem is an utter impossibility. The family physician is not only in the position to discover pulmonary tuberculosis at the earliest possible day, and thus increase the chances of cure nearly fifty per cent., but it is also the family physician who is best able to inaugurate sanitary and prophylactic measures not only in regard to the prevention of tuberculosis but also also of nearly all other diseases. Dr. Knopf believes that the community which pays enough competent practitioners to look after the preservation of health of all the indigent families will be the financial gainer in the end, and will improve its sanitary and normal condition beyond expectation. All the well-to-do familes will then also learn the value of engaging a general practitioner as a permanet family physician. Through such a system Dr. Knopf believes that the family physician of the future will rise again, not only to the height of the social and professional standing which the physician of the past has occupied, but he will rise still higher in importance and in recognition by the laity as well as by the profession. It is the opinion of the essayist that the family physician of the future shonld constitute one of the great factors of civilization and one of the most impor-

*Abstract of a paper by S. A. Knopf. read before the recent meeting of the American Academy of Medicine.

Listerine

in

Summer Complaint

THE ABSOLUTE SAFETY OF **LISTERINE**, ITS WELL DEFINED ANTISEPTIC POWER, AND THE READINESS WITH WHICH IT LENDS ITSELF TO COMBINATION WITH OTHER INDICATED REMEDIES, ARE PROPERTIES WHICH HAVE LED MANY PHYSICIANS TO LOOK UPON AND USE **LISTERINE** AS THE ANTISEPTIC FOUNDATION OF THEIR PRESCRIPTIONS FOR SUMMER COMPLAINT

We have a 32-page pamphlet on this subject which may be had upon application

LAMBERT PHARMACAL COMPANY, SAINT LOUIS

tant helpers in the betterment of the sanitary, social and economic condition of the human race.

A Powerful Diuretic.

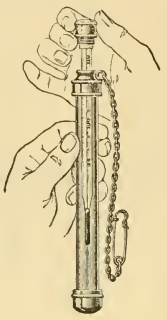
Although the materia medica abounds in drugs having a diuretic action, but few of them can be considered pure diuretics, the majority producing their effect in an indirect manner. Among the pure diuretics theo bromine has been extensively employed in late years in the form of the salicylate. This preparation, however, is not free from irritating effect upon the gastro-intestinal tract owing to the contained salicylic acid, and for this reason Dr. Impens, of Brussels, after considerable experimentation succeeded in producing a double salt of theobromine sodium and acetate of sodium, to which the name agurin has been given. This preparation has been made the subject of extensive clinical studies in the clinics of Prof. von Litten, of Berlin, Destree, of Brussel Buchwald of Breslau, and von Ziemssen, of Munich. The results of these tests have shown that in the dropsy of cardiac disease, agurin is a prompt and reliable diuretic free from any irritating effect upon the digestive organs or kidney, while in some cases of ascites due to cirrhosis of the liver and in cases of edema from chronic interstitial nephritis, without marked destruction of the renal epithelium, the drug acted efficiently. The diuretic value of Agurin is further confirmed by some conclusions presented by Dr. A. C. Barnes, (Medical Record, May 24, 1902) in discussion before the American Therapeutic Society, according to which the acetates form double salts with theobromine which are soluble and are powerful diuretics, of which Agurin is a type.

An Aseptic Thermometer Case.

The medical profession, as a class, recognize the necessity for absolute asepsis in all medical and surgical procedures, the carrying out of which may subject a patient to a possibility of becoming infected. This danger is quite as imminent in the use of clinical themometers as with surgical instruments, for a theremometer being used with several patients in quick succession and without beiug properly cleansed and disinfected after each application may trans mit disease from one to another.

The simple device manufactured by the Norwich Pharmacal Co., and pictured here provides a ready means to this end, and does away with much of the trouble attending the sterilization and disinfection of the thermometer by the user.

The illustration gives a fair idea of its simplicity. It measures complete about five inches in length, and the diameter is so slightly increased over that of ordinary holders as to make it scarcely noticeable in the vest pocket. The lower part, which holds the antiseptic solution, is a tube made of heavy glass of best quality especially annealed to withstand hard knocks.



The bottom of this tube is closed by a metal screw-cap, which hermetically seals the end and protects it against breakage. The upper end of the tube is closed by a diaphragm held in position by a metal neck-band to which is attached a safety chain for fastening the case securely to the vest. This diaphragm is so constructed as to admit of inserting the thermometer into the antiseptic solution, where it may be carried without danger of leakage. The thermometer is secured by rubber packing to a metal cap, which screws into the neck band, making the apparatus complete.

In using this appliance the glass tube is nearly filled with an antiseptic solution, such as corrosive sublimate, 1.500. This is done by inverting the case and unscrewing the bottom cap, when the solution may be introduced without disturbing the thermometer, and the cap may then be replaced It may then be safely carried in the pocket, since the toughness of the glass insures it against breakage and the diaphragm prevents leakage.

To remove the themometer from the case it is only necessary to unscrew the cap as shown in the cut. On withdrawal of the thermometer the diaphragm completely closes so that the antiseptic solution cannot run out, even though the case be inverted. The thermometer is returned to the case with equal ease.

In its improved form this case is all that could be desired and admirably accomplishes its purpose.

Gastralgia---Its Treatment.

Gastralgia is, for therapeutical purposes divided into two groups by Professor

GLYCO-HEROIN.

(SMITH)

Coughs, Bronchitis, Phthisis, Asthma, Laryngitis, Pneumonia and Whooping Cough.

Glyco-Heroin (Smith) has passed the scrutiny of both clinical and scientific investigation and its therapeutic value has been well defined and established by prominent men in the profession of medicine.

Each teaspoonful represents one-sixteenth grain Heroin with

A true exact solution of Heroin in Glycerine.

Ammonium Hypophosphite
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White Pine Bark
Balsam Tolu
Glycerine and Aromatics.

Permanent and unalterable through age.

to enhance the palliative effect of Heroin and to embody decided curative properties in this preparation.

Glyco-Heroin (Smith) places at the command of the physician and for his convenience a most superb and finished remedy to be accepted and used by him as an ethical preparation with physical characteristics and therapeutic properties far excelling all other remedies of the Materia Medica and Pharmacopœa for the treatment of Coughs in all the various forms

Adult dose—one teaspoonful.

The quantity ordinarily ordered by the physician is two, three or four ounces.

Physicians are requested to write for samples.

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FERRO-SOMATOSE

The Ferruginous Nutrient and Tonic.

LACTO-SOMATOSE

The Food for Diarrheal Diseases.

AGURIN

The Non-Irritating Diuretic.

SALOQUININE

The Tasteless and Improved Quinine.

Saundby (N. Y. Medical Journal). The first group comprises those cases in which pain occurs independently of eating, and the second group, those cases in which the pain occurs after food is taken. The treatment of the first class consists of change of scene, a sea voyage or mountian air and abundant food at regular intervals. The palliative treatment consists of iron, quinine, arsenic, nux vomica and the mineral acids.

For the second class, the treatment is, rest in bed, milk and lime water in sufficient quantities—say an ounce every hour. A nutrient enema of one egg, beaten up in four ounces of milk, to be given every four hours. The amount of milk should be increased with improvement, and if milk fails, from two to four ounces of lightly cooked minced meat may be substituted.

For the relief of the pain in both cases, Saundby gives morphia or heroin, but in a recent clinical report Professor Boone, College of Physicians and Surgeons. St. Louis, states that he finds one Antikamnia and Heroin Tablets (5 grains Antikamnia; 1-12th grain Heroin Hydrochloride) given as required, not only relieves the pain, but prevents its recurrence, much more satisfactorily than either heroin or morphine alone. In other respects he concurs with Professor Saundby in his method of treatment.

Notice of Change in Address.

The Grand Rapid X-Ray Mfg. Co., a firm recently made pleasant acquantence with many of our readers, has for three years had its main factory in Ravenna, Ohio, and very little has been done in Grand Rapids, Mich., outside of the office work. Last year an addition was built to the Ravenna factory, to make space not only for the manufacture of more of their static X-ray apparatus, now so well known as "The Sorensen," but also to make room for offices.

Before the building was completed, the demand for their different X ray apparatus was so great that they had to use every foot of space for main factory purposes, and it was not untill another addition was built this Spring, and space rented in other buildings besides, that they have got room enough to move everything to Ravenna, but even with the additional space, the demand for their goods has so increased, that they must build again this summer.

This constant demand for "The Sorensen" shows how much this machine is used by the medical profession.

The X-ray Mfg. Co. in Ravenna, Ohio, is the only factory making static machines all from the crude material into a complete finished machine. The lumber is bought in the woods, and dried and prepared in the factory, and same way with all the other material.

Our readers, who has formerly had dealings with them, as well as new customers, will after this address all communications to: Grand Rapid X-Ray Mfg. Co.,Ravenna, Ohio.

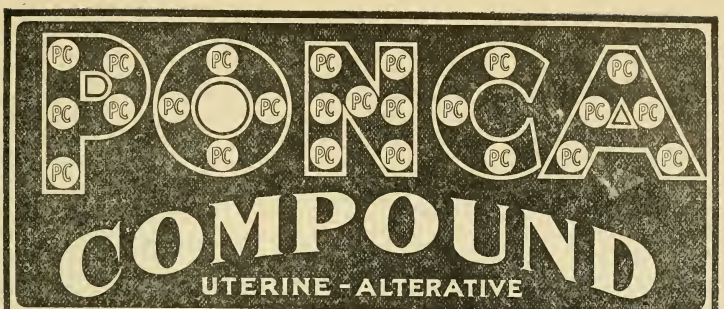
The following refers to a Professor of Meteria Medica in one of the largest eastern schools:

Dr. L. B., in opening a small chancroid, slightly cut his index finger. The injury was of such small apparent consequence that no attention was given the wound. In two days inoculation was manifested and in four days the entire arm to the axilla was involved. Free incisions were made with little benefit. On the advice of a brother practitioner, Antiphogistine was applied covering the entire arm. At the end of twelve hours the dressing was removed and the inflammation had subsided. Antiphlogistine was not again immediately applied, but, the pain returning, hot application of bichloride solution was used, but with no abatement of pain, and the inflammation was again more rapidly assuming control. A second resort to Antiphlogistine was then decided upon with most happy results. The arm again under this treatment assumed its normal condition and all traces of the virus disappeared.—*The International Journal of Surgery*, May, 1902.

I am not in the habit of writing promiscuously of the virtues of medicines but when I have used a remedy for many years with uniform success I feel that it is not out of place to give that remedy my commendation. I have been engaged in the practice of medicine here for many years and the diseases which I am called upon to treat are mostly of malarial origin. Under such circumstances I am required to have a positive and efficient tonic for the hepatic organs. It is very difficult for me to get along without that tried and true remedy for the above conditions, Chionia. I frequently use it alone and at other times in combination with other indicated remedies. I find it a real tonic for liver troubles and not a mere stimulant, that its administration promotes digestion and supplies the exhausted and run down liver with new energy. Another great advantage is that it has no depressing effects, which ordinary purgative possess.

L. Williams, M.D.

Yorktown, Ark.



RELIEVES CONGESTIONS, ENCOURAGES PERISTALSIS,
REMOVES SPASMODIC CONDITIONS,
REGULATES THE VASCULAR SUPPLY.

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SYRUP HYPOPHOSPHITES COMP. WITH QUININE, STRYCHNINE AND MANGANESE.

1-128 grain Strychnine to teaspoonful

The pharmaceutical skill displayed in making this favorite compound more stable and agreeable, deserves the approbation of the profession.

Syrupus Roborans as a Tonic during Convalescence has no Equal.

As a nerve stimulant and restorative in waisting and debilitating diseases, as a constructive agent in Insomnia, Pneumonia, Bronchial Asthma, Marasmus, Strumous Diseases and General Debility, this compound has no superior. Owing to the solubility of the salts, additions can be made of Fowler's solution, Syrup Iod. Iron, Iod Potass, etc., giving the advantages of these remedies without interfering with the stability of the preparation. SYRUPUS ROBORANS is in perfect solution, and will keep in any climate.

DR. T. H. STUCKY writes: "In a case of Tertiary Syphilis, very anemic, the Iodides were revolting to the stomach, being vomited when taken. Syrupus Roborans given three weeks with improvement, when the Iodides Potassium was retained with good results."

DR. W. O. ROBERTS says: "In cases convalescing from 'La Grippe Syrupus Roboran aas no equa..

PETER'S PEPTIC ESSENCE COMP.

A POWERFUL DIGESTIVE FLUID IN PALATABLE FORM.

Please note that Essence and Elixir Pepsin contain only Pepsin, while in Peter's Peptic Essence we have all the digestive ferments. These are preserved in solutions with C. P. Glycerine in a manner retaining their full therapeutic value, which is exerted in and beyond the stomach.

It is a stomachic Tonic, and relieves Indigestion, Flatulency, and has the remarkable property of arresting vomiting during pregnancy. It is a remedy of great value in Gastralgia, Cholera Infantum and Intestinal derangements, especially those of an inflammatory character. For nursing mothers and teething children it has no superior. Besides mere digestive properties, Pepsin and Pancreatine have powerful soothing and sedative effects, and are therefore indicated in all gastric and intestinal derangements, and especially in inflammatory conditions. It is perfectly miscible with any appropriate medium. In certain cases the addition of Tr. Nux Vomica gives much satisfaction. Please write for Peter's Peptic Essence and you will not be disappointed. These preparations are held strictly in the hands of the medical profession, never having been advertised as popular remedies, nor put up with wrappers and circulars expatiating on the use of the Hypophosphites or Digestive, thus educating the public in the use of these valuable compounds.

Samples Sent upon Application. Express Charges at your Expense.

For Sale by all Wholesale Druggists.

ARTHUR PETER & CO., LOUISVILLE, KENTUCKY.

In papine advanced pharmacy has given us a perfect opium preparation. It possesses the anodyne virtues of opium and not the constipating and untoward actions. Papine may be briefly defined as the only opiate which is free from the evil effects which I have just named. It is very prompt, in this respect excelling any other opiate, and it never produces nausea, constipation and the usual woes that go on hand in hand with the old-time opiates. Papine is therefore, the remedy which is indicated in all forms of inflammatory pain. It is given in doses of one teaspoonful every one, two, or three hours, until its anodyne action is attained. In giving papine, we can bear in mind that a teaspoonful represents the strength of one-eighth of a grain of morphine. Having this fact in mind, the dosage which is appropriate in any case will at once suggest itself.

Extract from "Remedial measures indicated in affections attended with Pain"

G. S. TROTTER, M. D.

—*New Albany Medical Herald*

Success and Gratitude.

We beg to gratefully announce to the medical profession the removal of our offices and laboratories to 105 Chambers St., New York, N. Y., where with greater space and more extensive facilities we shall be better enabled to take care of the increasing demand for Ergoapiol (Smith) and Glyco-Heroin (Smith).

After having our personal statements as to the unusual efficacy of these preparations in their respective indications verified by hospital and clinical investigations we sought to interest the physician individually, and the satisfaction of those who have investigated either or both could not be more fully manifested than in the necessity of our new and more commodious quarters.

Indeed none the less is our gratitude to the Charlotte Medical Journal, which has been so frequently mentioned in the communications requesting trial samples, etc., therein showing the large and wide-spread circulation of so consummate and estimable a Journal.

Very sincerely,

MARTIN H. SMITH, Co.

Why Coca is a Panacea.

How many of our readers appreciate the true value of Coca as an all around remedy! Not Cocoa, from which Chocolate is made but Coca, from which that potent substance Cocaine is produced. It requires one ounce of Coca leaver to make one grain of pure Cocaine, and that alkaloid is but one of many contained in these marvelous leaves. It is because of the modified action of all the constituents that the whole drug is possessed of different therapeutic properties, and is specifically greater than any one of its parts. Coca is a nervous stimulant, acting primarily on the cerebral cells, but in this action having an elective affinity for the respiratory center and a chemico-physiological depurative influence on the blood. It is from this latter cause that Coca has such a wide-spread usefulness, which seemingly classes it as a panacea for all ills. With a purified blood stream, the organs of assimulation and the muscular and nervous systems are not only repaired, but maintained in equilibrum.

Unlike any other nervous stimulant Coca is not followed by depression, though in full doses a brief period of depression may precede its physiological action. This indicates the employment with Coca of a deffusible stimulant which after an evarnescent period speedily gives place to the influence of the drug. The difference between the action of alcohol and Coca is well illustrated in the anecdote of the Andean Indian, who, given a first taste of whisky and asked his idea of its effects compared with Coca, replied: "Coca helps a man to live, but whisky makes him row a boat."

(Mortimer's Peru: History of Coca, p. 224.) Thus the combination of wine with Coca such as in the well known Vin Mariani, is not only purely scientific, but a commendable preparation that presents an agreeable means of exhibiting the positive merits of properly preserved Coca.

Drug Store Manager Suffers for Giving Substitute to Customer.

In Special Session on last Thursday before justices Wyatt, McKean and Hinsdale, Clarance D. Bowman, a director of the Lewis A. Bates Company, and the manager of their drug store in No. 739 Sixth avenue, pleaded guilty to having violated section No. 364 of the penal Code in using another preparation in place of essence of pepsin manufactured by Fairchild Brothers & Foster in filling prescriptions calling for the latter preparation. He was fined $50.

It appeared that on several occasions when physicians had prescribed Fairchild's pepsin Bowman had delivered the imitation mixture. Bowman said he was sorry for what he had done, but had no excuse to offer. In imposing sentence Justice Wyatt said that the offense was a most serious one, and that a heavier penalty would have been imposed had not the injured firm recommended leniency by reason of its being the defendant's first conviction.

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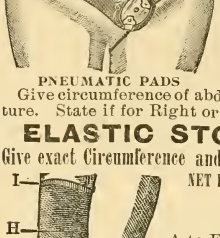

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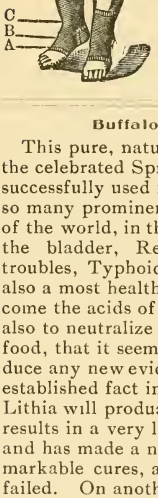

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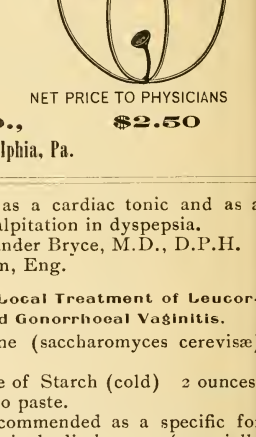

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I am particularly well acquainted with Cactina in the pillet form and can speak highly of it as a cardiac tonic and as a remedy for palpitation in dyspepsia.

Alexander Bryce, M.D., D.P.H.
Birmingham, Eng.

Formula for Local Treatment of Leucorrhœa and Gonorrhœal Vaginitis.

℞ Cerevisine (saccharomyces cerevisæ) 3 ounces.
Glycerine of Starch (cold) 2 ounces.
Make into paste.

This is recommended as a specific for persistent vaginal discharges (especially old standing cases), by Dr. Chapelle of Paris, and has proved almost universally successful and is now very largely used to destroy by phagocytosis pathogenic germs which invade the vagina.

A portion of the paste made up in a ball about the size of a walnut, should be placed in the vagina, well up against the cervix and retained in position by a tampon of absorbent cotton. The treatment is perfectly harmless and if persisted in for a week or ten days, will give marked beneficial results which will be maintained, especially if the patient is sustained by liberal diet and tonics such as phosphoglycerate of lime wine. Cerevisine is a pure form of the yeast plant, desiccated at a low temperature.

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Report of Three Cases of Lobar Pneumonia.

By J. S. Moremen, M.D., Louisville, Ky.

The recent fall in temperature which prevailed throughout the entire Ohio valley was quite sufficient to reawaken many cases of chronic bronchitis and to establish many acute cases. The number of cases of coryza which have occurred have been large, and the depression consequent among these cases has in several instances been most marked. Several physicians have, in fact, regarded some of these cases as pure la-gripe, and I am not entirely prepared to deny this affirmation.

In this visitation I have witnessed three cases of lobar pneumonia that have in some of the accompanying symptoms been out of the ordinary, and I have, therefore, thought it proper to report them. These cases exhibited the usual temperature range, the pleuritic pain and other symptoms, but different from the ordinary cases in that there was a large amount of nervousness present in every instance. I employ the term nervousness incorrectly probably, but that word has come to have a field of meaning which includes restlessness and insomnia. These patients, although enjoying good health before being taken, developed a degree of restlessness that was very exhausting, and I seriously feared the effect of this on the heart and also I have learned to regard this symptom with concern since these patients often take further pulmonary involvement. A patient who is constantly tossing from one side of the bed to the other and who cannot sleep may be regarded as one who will encounter many difficulties on the way to recovery. In consulting various text-books in regard to the prognosis of pneumonia I find the leading writers regard insomnia and restlessness as factors which intensify the elements in the case, and further a hint as to remedies to be employed and to expressing doubt as to the outcome of the cases.

J. H., age 22, a book-keeper, went out on bicycle riding and cooled off by riding slowly after getting near home. About 10 p. m., he was seized with a violent attack of pain in the right side. When I arrived he had a fever of 104 F., and the pain was so severe that he could not take a long breath without great agony. He was restless also. This man was clearly in the first stage of pneumonia. His pulse was kept in subjection by papine in doses of two teaspoonfuls every two to four hours.

After the pain had ceased the patient developed restlessness and insomnia to a marked degree. I put him on bromidia every three hours to control sleeplessness and restlessness and gave quinine in doses of 3 grains every three or four hours until the hepatization of the lungs had been removed. I gave this patient spts-mindererus in doses of a teaspoonful every two hours. His chest was kept incased in cotton batting until he was able to sit up. This patient as soon as the restlessness and insomnia were eliminated went along without incident to entire recovery.

I will say here that as soon as resolution was complete in his lung I did not let him stop medicine. I quitted all the drugs which were given through his attack, but he was put on a tonic—the syrup of the iodite of iron—on this he was getting his appetite and strength back quickly.

P. K., age 32, a business man, was taken ill of lobar pneumonia. I did not see him, however, until hepatization was complete and there was marked dullness on percussion. He was very restless and his nurse told me that he had not slept any the previous night. I found him wide awake, although he felt tired and weak and could not sleep. I put him on quinine and spt's mindererus as in the other cases and gave him bromidia reglularly to induce sleep and quiet. I may here add that in my estimation nothing equals quinine in setting up resolution and this is why I give it.

Spirits of mindererus is an excellent cardiac stimulant and diaphoretic, and these two agents have seemed to me to more exactly meet the indications in cases of pneumonia. This patient made a recovery, being confined to his bed twelve days. As soon as he could leave his bed I had him begin with syrup iodide of iron. I also advised in this case that the patient take readily digestible food as often as he felt disposed. In all instances I believe it is very important that convalescent patients be fed with frequency and adquately.

Walter S. B., age 18, a clerk in a publishing house, was seized with a violent attack of pneumonia in which the entire left lung was involved. There was also considerable pleuritic involvement and the pain he experienced was indeed very agonizing. This element was controlled with liberal doses of papine and spirits of mindererus was begun and continued with regularity. After the fourth day, as is usual in these cases, the pleuritic pain ceased to be a factor, but the patient developed a degree of restlessness and insomnia that was very exhausting and caused me to entertain fears. I however got him to sleep well under regular doses of bromidia, which he took every four or six hours in the dose of a teaspoonful. After this I had the satisfac-

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tion of seeing the patient go along well, making a complete recovery. This patient illustrates very well the type of cases that I have seen this year. In all of these sleeplessness and restlessness was a feature that made every symptom worse and rendered the prognosis grave. It is a fact that is well known that these patients will grow weaker with the progress of wakefulness and if I have learned anything in the practice of medicine in treating a large number of cases of pneumonia, it is to control this symptom. To neglect this is to stand the consequences of increased exhausition on the heart. The depression of the vital powers which comes from the associated cause of death in pneumonia.

We as cliniticians should watch out for depressing and exhausting conditions.

Concerning alcoholic stimulants on which some observers lay a great deal of stress I wish to say that while these are very often necessary to counteract depression and irritability and weakness of the heart, I am of the serious opinion that these extreme measures will never be necessary if we guard our patient against depressing factors like pain, restlessness and sleeplessness.

A Specific in Catarrh.

The real and doubtful remedies in this ubiquitous disease are positively legion,and if Germiletum did not possess exceptional and specific scientific merits which will at once command the attention of the thoughtful, we should hesitate to mention catarrh, that bugbear of the medical profession. It is well known that the saliva, lachrymal secretion, and most of the secretions of the upper alimentary and respiratory passages are alkaline [no acid reaction] and so strongly antiseptic its special utility is conceded. The experimental and clinical observations on these lines so fully confirm anticipations that a faithful and impartial trial of Germiletum is only requested to demonstrate its superiority, whether in nasal, aural or pharangeal catarrh. Manifestly all forms are due to the ravages of microorganisms. Germiletum effectually kills germs, while Nature only restores the normal state. Use one part Germiletum to six parts of warm water as a wash, gargle or with an atomizer, three times a day.

Grippal Cough-Laryngitis-Bronchitis.

In these affections, antikamnia is indicacated for two reasons: First, because of its absolute power over pain; at once removing this element of distress and placing the whole system in the best possible condition for a speedy recovery. And second, because of its power to control inflammatory processes, lowering the fever by its peculiar action on the nervous system. Codeine is strongly indicated because of its power as a nervous quietant, often quickly and completely controlling the cough. In nervous coughs, irritation of the throat, laryngitis, bronchitis and phthisis, where the cough is altogether out of proportion to the amount of expectoration, Antikamnia-Codeine tablets will give prompt satisfaction. In fact, in cases at nervous coughs, irritable throat, commonly attendant upon influenza and la grippe, as well as in subacute laryngitis, and slight bronchitis, this tablet alone will often so control the cough that the disease rapidly subsides. This is not strange when we remember that nothing could keep up this irritation more than constant coughing. In the more severe cases of bronchitis and in phthisis, the patient is not only made more comfortable, but the disease itself is brought more directly under control by checking the excessive coughing, relieving the pain and bringing the temperature down to the normal standard.

The Ætiology of Pleurisy.

Dr. Alfred Wolff (Die Medicinische Woche, September 30 and Octobir 7,1901) after giving a very complete historical survey of the progress of our knowledge of pleural effusions, enumerates the verious micro-organisms which have been found associated with pleurisies. By far the greater number of cases are associated with the Bacillus tuberculosis, the proportion being variously stated at from 90 to 98 per cent. of all cases. The tubercle bacilus is, however, generally associated with some other micro-organism. Other bacteria which may be found, either alone or associated, are diplococci, as in meta-pneumonic pleurisies; staphlococci(pyog.aurous,albus, and citreus) and streptococci in purulent effusions. Diplococcic effusions may be absorbed with operation; in the other cases this is unlikely. The diagnosis of tuberculous pleurisies cannot often be made by bacteriological means.–*Treatment, London Dec., 1901.*

I am more than pleased with the phyiological action of Seng in the treatment of chronic indigestion. It seems to nicely restore the action of the stomach, re-establish perfect digestion and its good effect is quickly evidenced by the general improved appearance of the patient.

J. Carl Ludwig, M. D.
Cincinnati, Ohio.

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Nephropexy.

G. M. Edebohls (Annals of Surgery, Feb., 1902) describes his present method of doing this operation in the following terms: The patient is placed face downward upon the table with the author's kidney air-cushion underlying and supporting the abdomen. A straight incision along the outer border of the erector spinae muscle is made from the lower border of the twelfth rib to the crest of the ilium. Should the space between the rib and the alium be narrow, the incision is placed more obliquely, so that its lower end will reach the ilium slightly to the outer side of the attachment of this muscle. The fibers of the latissimus dorsi muscle are now bluntly seperated from each other just over the outer border of the erector spinæ muscle without opening the sheath of the latter. The transversalis fascia is split and the perineal fat is exposed. The iliohypogastric nerve is drawn to one side for safety. If this be impossible, the nerve must be divided and its severed ends united after the operation is over. The sheath of the quadratus lumborum muscle is opened from rib to rib along the anterior aspect of its laterial border. The retraction of the cut edger exposes a large area of of raw muscle. The kidney is now freed by blunt dissection, delivered from its fatty capsule through the wound, freed entirely from it, palpated as to its substance, pelvis an ureter, and if necessary punctured or incised. The hand should now be passed down to the cecum through the wound, if a right-sided operation is being done, and the appendix examined. If at all diseased it can usually be delivered through this wound and removed. As part of the same process the other contents of che abdomen may be investigated. The capsule proper of the kidney is now divided along its convex border from pole to pole and stripped toward its pelvis until about half of it is free. Four suspensin sutures of forty-day catgut are passed through the reflected portion and the still attached capsule proper close to their line of junction, two sutures being placed on the anterior and two on the posterior aspect of the kidney, each running parallel with the long axis of the organ. It is now returned to the body cavity and the sutures are passed in turn through the abdominal musculo - aponeurotic parietes. Those to the inner side of the incision will pierce the retracted sheath of th quadratus near its edge, the qaudratus itself, and the erector spnæ muscle. Those to the outer side of the incision will traverse the transversalis fascia and the latissimus dorsi muscle. The wound is then closed on the usual principles after the fixation sutures have been tied. If it is properly done the bared surface of the kidney is brought up against the raw surface of the quadratus muscle. Between them very good adhesion promptly occurs.

The Advantages of the Ice-pack.

L. L. Roos (Phil. Med. Jour., Mch. 1, 1992) calls attention to the very frequent invasion of a pneumonic process which is due to the exposure of the patient during the bath, also to the shock attending the transfer from a warm bed, to the danger from hemorrhage and perforation due to the rough handling, to the relatively short effect of the immerson on the temperature. The author believes that these disadvantages are obviated by the cold pack, which can be briefly described as follows: The temperature is taken *per rectum* q. 4. h. and if it be over 102.2 deg. F. the pack is given. Whisky (ʒij) may be given before and after, if the urine be negative; if not hot milk should be given. The bed being properly protected by a rubber sheet with a blanket over it, the patient is wrapped up in a sheet and blanket, wrung out in water at a temperature of 70 deg. F. Half an hour later a second sheet at a temperature of 60 deg. F. is substituted for the first, which is changed again in another thirty minutes to one at a temperature of 50 deg. F. At this time the axillary spaces, the arms and legs, may be packed with cracked ice outside the sheets. The pack is repeated for the last time at a temperature of 40 deg., the entire procedure consuming two hours. The thermometer always shows a drop of from two to five degrees and it is claimed that the method acts as a sedative, that it stimulates the heart, does away with shock and handling, and can be more readily given than the tub-bath.

Relation of Surgery to Obstetrics.

Cragin (Medical Record, March 29, 1902) believes that the relation between surgery and obstetrics is now,and in the future is likely to be, so intimate, that the best preparation for obstetric work of the highest type is thorough surgical training. He thinks that the secret of success in obstetrics is based largely upon asepsis, and this is far better secured by one who has had surgical training. In dealing with hemorrhages surgical principles and training are of constant service; and if you are face to face with ectopic gestation surgery is essential. The repair of larcerations occasionally demands the attention of every obstetrician, and this with proper care of all

details is rarely done without surgical experience. So in obstructed deliveries and in eclampsia surgical judgement and skill are often invaluable aids. If in case of eclampsia emptying the uterus is advisable the surgeon's training in dilation of the cervix is needed to avoid laceration of the uterus. In cases of infection where the problem is to remove the secundines from the uterus without opening new avenues of infection by scraping too deeply, injuring the endometrium and opening vessels and lymphatics skilled uterine surgery is required; for it is easy for the inexperienced to mistake both with the finger and the curet the uterine wall for foreign material, and scrape not only beyond the limit of safety, but even through the uterine wall. He further believes that it will in the future be regarded as fully within the sphere of the skilled obstetrician to treat all displacements of the uterus beginning or recurring during the puerperium. As such displacements are most likely to occur when the uterus is large and the ligaments relaxed so they are more easily corrected soon after their occurrence, and it is therefore only rational that the obstetrician should be trained in the maintenance of the normal position of the uterus during its involution.

Varicose Veins.

A. P. Gould (Lancet, March 1, 1902) brings out concerning them the following facts: The age at which the varices are first noticed is an important matter in the history and will in general be found much earlier than most authors state. The question is one of existence, not of pain, and too often the date at which the pain begins is taken as that at which the cervix appeared. As a rule, the tissues of the subjects of varicosity are of the best, the disease usually having no appreciable effect upon the system. There is also a conspicuous absence in all cases of the usual symptoms and consequences of venous obstruction. The result of excision of varicose veins and also of ligature of the main superficial vein, into which they empty their contents, is always of such a character as to demonstrate that the condition is not one of obstruction lying at the bottom of the varicosity itself; for, if this were the case, whenever the operation were done the active symptoms of obstruction would increase, or, if absent previously, would immediately appear. Pregnancy has an important effect on variosities, and here again a careful history will often show that the woman had the large veins long before she married, but that pregnancy was the cause of so increasing them as to make them painful. Undoubtedly, too much importance is given to the state of pregnancy as a cause, because the disease is found as often in males as in females. Hence in men the absence of any such possible obstruction as pregnancy is assumed to give in women makes it unlikely that she suffers from the disease in virtue of this physiological state. The treatment which the author recommends as the most serviceable for the average case is Trendelenburg's operation, by which the long saphenous vein is exposed near its confluence with the femoral, ligated twice and the vessel between the ligatures cut away. The author has examined 121 of his patients treated in this manner with reference to the operation, first, as to its influence upon the patient's comfort; second, as to the liability to thrombosis. All the patients reported that they suffered less pain than before the operation. In the vast majority the condition of the varicosities improved; in a few it was stationary; in none did it become worse. In those subjects who had showed a tendency to thrombosis he found that this simple procedure had been of very great benefit. He states that this operation is simple, safe, useful in nearly all cases, reliable for the relief of pain, for the hindrance of further development of the varices, occasionally leads to shrinking or even disappearance of them, and is not without strong influence in preventing thrombosis. Its good effects are most pronounced when regurgitation into superficial veins is marked. Its superiority over excision is greatest in cases of widely-distributed and numerous varicose veins. Dr. Gould's habit is to allow the patient to leave his bed on the eight and the hospital on the tenth day after the operation.

Aletris Cordial.

As a samyle of the benefit derivid from the use of Aletris Cordial let me cite the case of Mrs. S. B., a young married lady. She came to me for some uterine trouble for which I gave her proper treatment and she became better and soon she was pregnant with her first child. She went along to the fifth month, caught cold, developed a bad cough and soon miscarried to her great disappointment. After a long time she regained her health and became pregnant again. I kept a careful watch and about the third month I put her on the use of Aletris Cordial, and kept her on it at intervals for the remainder of her pregnancy. She went to her full time and had a beautiful and healthy boy and has been well and happy ever since.

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A Case of Puerperal Fever Treated with Unguentum Crede.

Ludwig Geiringer, in the Wiener Medizinische Presse, Feb. 23, 1902. On August 2nd of last year Mrs. K., 30 years old, was brought into the hospital. On her way from Hungary to Vienna on July 24th, she had been overtaken by labor pains in the railway car, and had been put off at Grammatneusiedl. Though it was her first childbirth, she was delivered without artificial means in the presence of a midwife only, having a full term, healthy boy. The placenta is said to have come away spontaneously three hours after the birth of the child. Four days after the delivery she had a chill and fever up to 39.8 deg. C. (103. 6 deg. F.); and seven days after delivery she passed what was presumed to be portions of the placenta and fragments of the membranes. When the fever appeared, medical aid was sought. In spite of the unfavorable condition of the patient the physician decided to take her to a hospital in Vienna; for she was in a small, dirty room swarming with vermin, and there was no chance for her recovery there. On August 2d, therefore, nine days after her delivery, she was brought in a wagon from Grammatneusiedl to the hospital.

On admission she appeared to be a strong, well-built woman showing all the symptoms of puerperal sepsis. Her temperature was 39.3 deg. C. (102.7 deg. F.), her pulse was 140, small and hurried; her facies was haggard; her lips were dry and her tongue was dry, furrowed, and thickly coated; her breasts still secreted a little milk. Her abdomen was distended, and very sensitive to pressure upon the flanks; but there was little spontaneous abdominal pain. There was a fissure about 2 centimeters (4-5 inch) long at the introitus vagina, which was covered with masses of yellowish-grey exude; and in the vagina itself were several pressure ulcerations also covered with membrane. An abundant foul-smelling secretion welled out of the os; but the uterus itself was contracted.

The usual treatment of puerperal sepsis was first undertaken. The patient was given a thorough vaginal and intrauterine sublimate irrigation twice daily, and the ulcerations were treated with tincture of iodine. When the temperature became excessive cold gauze packs were employed. She was given three 0.5 gram (7½ grains) quinine powders daily, besides plenty of milk, cognac, malaga, and white wine. But in spite of these painstaking therapeutic measures her condition remained bad. The only improvement was in the vaginal ulcerations, which cleaned up. She repeated chills with subsequent febrile rises to cover 40 deg. C. (104 deg. F.). She was frequently delirious and somnolent. The prognosis could therefore only be regarded as absolutely unfavorable.

On the seventh day of her sojourn at the hospital, being the eleventh day after the advent of her fever, and the fifteenth day post-partum, I decided to make a final attempt to save her by administering the Unguentum Crede, concerning which the first publications showing its value in these cases had then just appeared. On August 8th the patient received 3 grams (45 grains), on August 9th 5 grams (1¼ drams), and on August 10th 3 grams (45 grains) again of the ointment, which was inuncted into the external surface of the thighs, hips, and arms. Even on the night from the 9th to the 10th of August her sleep was a more quiet one; no more delirium or chills occurred; the morning temperature on August 10th 36.8 deg. C. (98.2 deg. F.) and it only rose that evening to 38.3 deg. C. (100.9 deg. F.); and the change in the subjective condition of the patient which appeared suddenly, almost so to say over night, was most remarkable. She began to feel very well, indeed, had appetite, and made the impression of a convalescent patient upon me.

I ordered a continuation of the use of 3 grams (45 grains) of the Unguentum Crede for three days more. Her condition remained permanently excellent; there were no further chills or noticeable rises of temperature. The patient felt very well, had a splendid appetite, slept soundly, and on August 23d, after three weeks sojourn in the hospital, she was able to leave it completely well though somewhat anaemic.

Her temperature chart is proof of the brilliant effect of the Unguentum Creede.

In all 20 grams (5 drams) of the Crede ointment were inuncted. The remarkable improvement was manifested when 8 grams (2 drams) had been employed. As the history shows, it is to be attributed to the Crede ointment solely and alone.

Later on I have had several opportunities of employing the Unguentum Crede in puerperal sepsis; but I only saw noticeably good effects which could unmistakably be attributed to the ointment in cases in which the symptoms were rather those of a general septic infection. Cases in which the post-mortem examinations showed severe purulent infiltration of the parametrium and peritoneum, or a generalized diphtheritic inflammation of the endometrium, were entirely uninfluenced by its use.

Nevertheless, my experience makes me recommend it as a duty to make one at-

tempt at least with inunction of the Unguentum Crede in every case of puerperal sepsis. For complete recovery can often thus be secured in otherwise perfectly hopeless cases.

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Editors in Chief, Noah Porter, D. D., L. L. D., and W. T. Harris, Ph. D., L. L. D., United States Commissioner of Education, assisted by a large corps of associates and special editors. Royal quarto, 2364 pages, 5000 illustrations and rich binding. G. & C. Merriam Co., Springfield, Mass.

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A Personal Test.

By the irony of fate I was called upon to uso Neurilla on my own case for nervousness after La Grippe, and I think well of it.

R. S. Ward, M.D.
Dickey's Mill, Ky.

We call the attention of our readers to the advertisement of the Robinson-Pettet Co., Louisville, Ky., which will be found on another page of this issue. The house was established fifty years ago, and enjoys a widespread reputation as manufacturers of high character. We do not hesitate to endorse their dreparations as being all they claim for them.

A New Test for Albumin.

C. Fuhs, Brooklyn, (New York Medical Record, March 8, 1902) describes this new test, which is based on the following facts: 1. Albumin is coagulated by carbolic acid. 2. Equal volumes of non-albuminous urine and a mixture composed of equal parts of carbolic acid and glycerine, for an emulsion which clears up entirely upon agitation, leaving a perfectly transparent and highly refractive liquid. 3. Equal parts of albuminous urine and the above mentioned carbol-glycerine solution, when mixed together, produce a white turbidity, which remains, in spite of agitation, and not precipitate on standing, nor redissolve. The test is very sensitive, distinctly showing the presence of 0.1 per cent. of albumin in the urine, the degree of turbidity being proportionate to the percentage of albumin present in the urine. The solution used consists of equal parts of carbolic acid and glycerin; glycerin is added to prevent the formation of permanent emulsion between the carbolic acid and the watery element of the urine, and is added in excess so that no possible error can occur from this cause. To perform the test, 2 c.c. of this carbol-glycerin solution are poured into a small test tube, and 2 c.c. of filtered urine are added. Mix thoroughly with a glass rod, or by agitation. If a clear transparent liquid results, there is no albumin present; but if the slightest turbidity is noticeable, the urine is albuminous.

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Lancaster, Ohio.

Reception at the Medico-Chirurgical College Laborateries.

The informal opening of the new Laboratory building of the Medico-Chirurgical College, Seventeenth and Cherry streets, took place at 1 o'clock on Thursday, May 1st. Ex-Justice Edward M. Paxson, Prof. Edward J. Houston, Prof. L. Webster Fox, Chairman of the Building Committee, and the Deans of the various departments delivered short addresses. All the Faculty and a large number of the students and their friends were present and inspected the handsome and well-equipped building. The new building has 100 feet on Cherry street and 78 feet on 18th street. On the fifth floor is the anatomy and histology laboratory. On the third, chemistry; second, dental dispensary; first, general medicine and surgical dispensaries. The basement will be furnished as a gymnasium, college and reading rooms. The basement will be one of the finest in the United States. The building has cost, so far, over $125,000, and considerable more will be expended on it before it is opened for the students in the fall. Arrangments have been made to give instructions to 700 students in the three departments.

Anasarcin.

The Anasarcin Chemical Co., of Winchester, Tenn., makes this announcement: "From time to time we get letters of inquiry from physicians concerning the proper administration of Anasarcin and occasionally a letter saying the doctor had failed to get the results, which clearly indicates that the doctors in both instances have either failed to heed or to read the directions given in the literature accompanying the medicine. Now we wish to call attention specifically to its proper administration. In Anasarca, the result of either heart or kidney trouble, one or one and a half tablets three times a day with a dose of Epsom salts every other morning before breakfast will usually be sufficient to speedily reduce the effusion. In obstinate cases of ascites it will sometimes be necessary to give as directed for extreme cases in the literature accompanying the medicine, and to which we would direct attention.

"This latter plan of administering anasarcin should not be resorted to until the other way has been tried, and found wanting. But administered in one or the other ways here mentioned always followed with salts, as mentioned above, we have no hesitancy in asserting that any case of dropsy (except ovarian) can be relieved. In cases of valvular heart trouble and in Bright's disease where there is increased frequency of the pulse, it will be necessary to give Anasarcin in reduced doses (after relief of the dropsy), just sufficient to maintain the pulse at a rate a little below normal for months if need be. This can be done without detriment to the patient, but on the contrary with benefit, and this can be said of no other drug known to the profession. Indeed it is absolutely necessary that this condition of the circulation should be maintained for a long period of time in cases of valvular heart trouble or Bright's disease, that the diseased organs may have rest and the chance of restoration to their normal functions. One tablet three times a day will nauseate some patients while others can take one and a half or two without nausea. In dropsical conditions it is necessary to give a sufficient amount to control the circulation until the dropsy is reduced even if it does cause nausea, when it may be reduced in quantity and continued in doses sufficient, yet short of producing nausea. In nearly all cases of Bright's disease there is hypertrophy of the heart, consequently increased frequency and tention of the pulse. Because of this complication in Bright's disease we have in Anasarcin Tablets and Anasarcin Elixir a treatment for this malady far surpassing anything hitherto offered to the profession. The elixir is a most potent adjuvant to the tablets in this condition, the tablets controlling the circulation, thereby relieving kidney congestion, while the elixir increases the diuretic action of the tablet, besides exerting a restorative effect on the kidneys (due mainly to the hepatica which it contains) possessed by few known remedies; also in the condition of plethora incident to pregnancy, where there is beginning dropsy of the extremities, scanty excretion from the kidneys, occasional darting pains through the head—in a word, a train of symptoms clearly foreshadowing convulsions. In such conditions the doctor is often at his wits' end to know what to do. We can with the utmost confidence recommend Anasarcin Tablets and Elixir in such cases, and though you may fail to obtain any controlling influence on the pulse in such conditions, nevertheless one tablet three times a day with a teaspoonful of the elixir every two hours through the day and a dose of Epsom salts every other day, will tide the patient safely through. In the failing hearts of typhoid fever, septicemia or any other disease in which it is necessary to sustain the heart's action, one tablet every four or six hours will be found superior to strychnia, digitalis or anything else. In any case of dropsy where the tablets fail to increase the action of the kidneys, the elixir should be given in connection therewith, a tablespoonful every two hours through the day. We have endeavored to set forth, as briefly as possible, the proper administration of Anasarcin and the various conditions in which it is indicated, not dealing in speculation but facts proven by clinical trial, yet doubtless there is much to be learned of its uses not here stated, and we trust that physicians using it will notify us of anything new discovered concerning its effects."

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This is to certify that I have used Sanmetto for the past eight years, and I can truthfully say that it has come to my aid in my practice, in such cases that I deemed was necessary, such as enuresis, catarrhal trouble and atonic conditions of the genito-urinary organs. In every case where I have used it faithfully it has proved to be all claimed for it—a potential remedy. I have taken it myself. As I am over seventy years of age, it has come to my rescue, and the relief is phenomenal. I have practiced medicine over thirty years here in Cincinnati

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A. D. H. Kemper, M. D.
Sedgwick, Kans.

Medical College of Virginia.

The Medical College of Virginia, whose advertisement appears in another part of this Journal, was established in 1838 and is the oldest college in the Southern States that has held continuous sessions since its inauguration. During the war it was the only Medical school in the Confederacy, and held during that period two annual sessions, supplying the army with a staff of surgeons, whose history, as registered in the army records of the United States, published by act of Congress, is a glorious illustration of their hard and faithful service. From a small beginning it has grown to be one of the best and most favorably known of the Southern colleges. Its progressive spirit is evidenced by the fact that it was the first Medical School in the State of Virginia to adopt the four years course, which has now become universal in all recognized colleges. The erection and purchase of new buildings and rearrangement of the rooms in the old ones were made necessary by the rapidly increasing number of students in attendance. These and extensive improvements in other directions give to this school a most excellent equipment for teaching purposes. Probably the most important recent addition to the teaching facilities of the school is The Memorial Hospital, now nearing completion. This hospital, one of the largest and *the* most complete in the south, being under the professional charge of the Faculty of the Medical College of Virginia, will enable this college to offer to students advantages in systematic clinical instructions not to be found elsewhere in the Southern States from Maryland to Louisiana.

The Early Diagnosis of Smallpox, Scarlet Fever. Measles, Etc.,

Is often difficult and calls for a quick decision. As the contagious wards of a hospital are not accessible to medical students for obvious reasons, the average physician has received less practical education as to the treatment of this important class of cases than in any other. Nevertheless, when he becomes engaged in practice, he is expected to form a prompt diagnosis. This is often a serious handicap as nothing reflects more credit upon the family physician than the ability to promptly detect an acute, exanthematous disease in its early stages and treat accordingly.

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